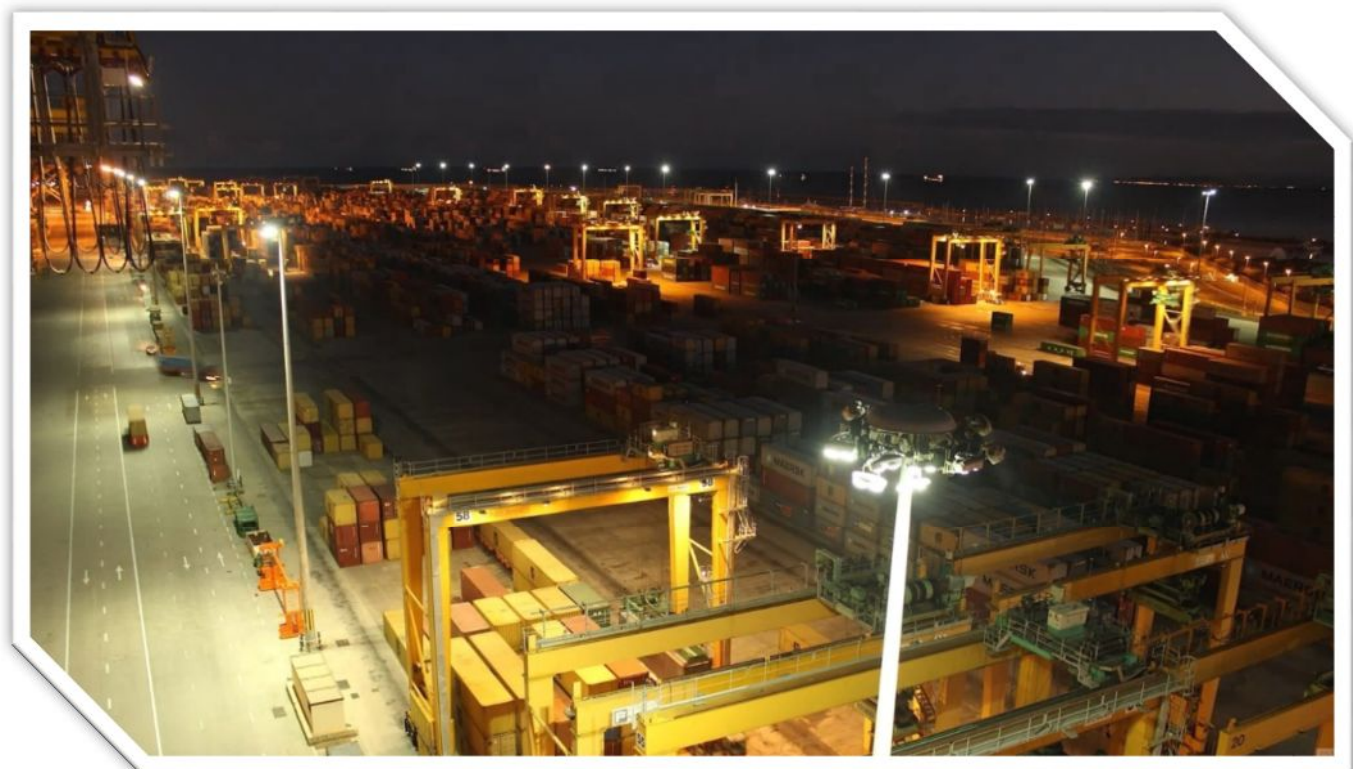




ACS
Energy Savings

LED Catalogue Solutions

2021



Noatum Container Terminal Valencia shining with more than 232 LED luminaries from ACS International LTD

What are LEDs?

A light-emitting diode (LED) is a semiconductor device that emits light when electrically forward biased. The colour of the emitted light depends on the composition and condition of the semiconducting material used, and can be infrared, visible or near-ultraviolet.



Why do we call LEDs as green lighting?

The green lighting means lights are energy efficient, long life, environmental friendliness and increased safety. LEDs have above-mentioned characters, so we call LEDs as green lighting. ACS is contributing to environmental protection by investing in green lighting technology.

A short glance back over the history of the LED & EDAE & ACS:

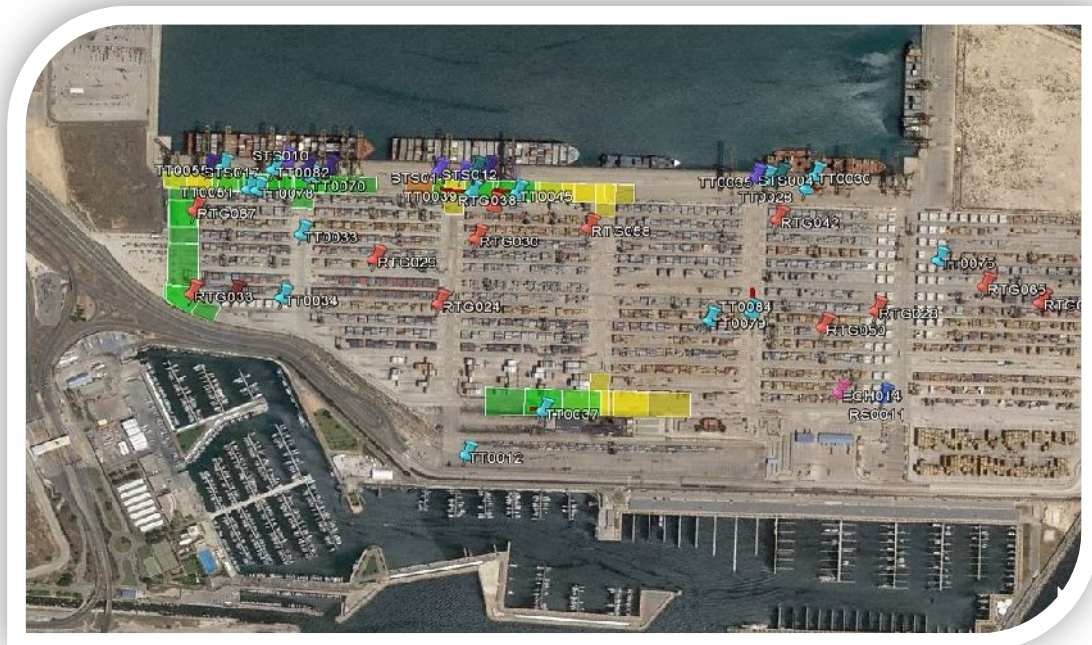
- 1935 The French physicist Georges Destriau discovers light emission in zinc sulfide. In honor of the Russian physicist, he calls the effect "Lossev light". Today Georges Destriau is credited as the inventor of electroluminescence.
-
- 1995 The first LED with white light from luminescence conversion is presented and is launched on the market two years later.
-
- 2010 LEDs of a certain colour with a gigantic luminous efficacy of 250 lumens per watt are already being developed under laboratory conditions. Progress continues to surge ahead. Today, further development towards OLED is seen as the technology of the future.
-
- 2012 First LED Test on a STS Crane at TCV (Valencia) by EDAE
TCV Gates LED Illumination by EDAE
-
- 2013 World Premiere: First Full LED STS Crane installed in TCV at Valencia (by EDAE)
https://www.porttechnology.org/news/worlds_first_led_lit_sts_crane_installed_in_valencia
-
- 2014 5 STS LED retrofitted at TCV (by EDAE)
Winner of the international tender for the NOATUM Valencia Terminal Yard as the best economical and technical solution.
Partner at the SEATerminals EU project with the Terminal Dynamic Illumination.
-
- 2015 World Premiere: ACS International Ltd. and EDAE team successfully developed the LED Terminal Dynamic System +50% savings over the best LED Technology.
<https://youtu.be/ipA4igfrnxo>
1st RTG Full LED Illumination at TCV (Valencia) by EDAE
1st Phase of NOATUM Valencia illumination Yard Completed
Improved LED Illumination for 3 APM STS (Algeciras)
-
- 2016- Present at Ten-T days at Rotterdam and in the Baltic Ports Conference at Helsinki.
2017 Winner of the PACECO Tender for 3 Malacamax STS cranes Full LED Illuminated
Winner of the NOATUM BILBAO Tender for full LED migration from VSAP of its terminal.
Full LED Illuminated new Terminal at Valencia, Coast Warf of Noatum
<https://youtu.be/Hx0M7qmgDyE>
Illuminating Three PACECO Cranes for TCV/APM Valencia
-
- 2018 World Premiere ACS Developing Terminal Dynamic Illumination System TDI2 working under scenario of IoT and Inter-IoT platforms and new Features and new Managing Platforms.
-

Who we are

Founded in 2015 our new enterprise now supplies, worldwide, high quality LED lighting solutions from an offshore location that let us to be most competitive. All the 10 years of knowledge and expertise of Ingeniería de Aplicaciones Energéticas SL (EDAE) was incorporate to the company. The technical assistant of our partners in most of the countries let us to arrive to the smallest client.

The aim of ACS is the optimization. We analyse the requirements, convert them into requirements and incorporate them to our business case model, to let the client be able to analyse its best total cost for ownership. Then even in an open tender we offer our best solution to maximize the owners benefit.

An example of this philosophy is the SEATDI (Terminal Dynamic Illumination). In 2015 ACS International LTD with its Technical Partner Ingeniería de Aplicaciones Energéticas SLU-EDAE (Spain), developed the first worldwide TDI, taking the advantage of fast diming response of our products and with the latest PLC technology we are able to adjust lighting conditions to environment in real time on demand.



View of TDI Operational Panel with Active Lighting Surfaces and its mode.

The result was an additional energy saving higher than 50% in energy that gave to our client a payback of 3 years even over the most efficiency LED Luminaries and with only a few luminaries per pole.

What can we do for you?

1st Illumination Consultancy and Projects Evaluation

At ACS, we support our clients from the beginning with the legal assistance to determinate the most suitable light level for each situation or condition (could be multiple levels for same place depending of the activity). We also take in consideration the maintenance cost and the downtime profit loss to define the quality and the project live. Once the minimum requirements are defined, we prepare a public tender for our client based in the Total Owner Cost, with base unit is the money (Net Present Value).

If is required ACS gives technical support during the tender for validate all documents, certificates or designs.

2^º Energy Savings Development Solutions

We claim that our solutions could give the best total cost for ownership in most cases, and several international tenders support us.

3^º LED Luminaries Supplier and Turnkey Projects

As we know the most efficiency luminaries we also are authorized international dealer of RazorLux (new brand for ZHIHAI) products as we are the legal representative in Spain of Razorlux for the Machines Directive 2006/42/CEE. We are the custodians of the DoC to Spain Razorlux (Former Zhihai) products and therefore in the territory of the European Union.

All products we handle have all the relevant legal certifications:

ZhiHai
 HONG KONG ZHIHAI INVESTMENT LIMITED
 香港中環皇后大道中111號11樓1103室
 2/F, Block A, West Electronic Community, 710035 Xian, PEOPLE'S REPUBLIC OF CHINA
 Doc. ref. No.: ZH100301

AUTHORIZATION

To: Mr. J. J. Garcia
 We, the undersigned, hereby authorize that:

Company: ACS (Spain) S.L.
 Address: C/Valencia, 2, 06100 Badajoz, Spain
 T4: +34 924 29 98 00

I hereby authorize the procedures and operations in paragraph 1) to be performed by the product owners with the assistance of the above service.

This authorization is valid until 31/12/2022 December 31st.

For and on behalf of:
 Hong Kong Zhihai Investment Limited
 香港中環皇后大道中111號11樓1103室

Wanglin
 CEO
 Hong Kong Zhihai Investment Limited

Attestation of Compliance
 No. EBN 11 01 76176 002

Holder of Certificate: Xi'an Zhihai Power Technology Co., Ltd.
 Block A, West Electronic Community
 710035 Xian
 PEOPLE'S REPUBLIC OF CHINA

Name of Object: Light
 (LED General Light)

Model(s): ZHGL-30, ZHGL-60, ZHGL-80,
 ZHGL-120, ZHGL-150, ZHGL-180,
 ZHGL-210, ZHGL-240, ZHGL-270,
 ZHGL-400

Description of Object: Rated Input Voltage: 100-240VAC, 50/60Hz
 Rated Power Input: 30W [ZHGL-30], 60W [ZHGL-60],
 80W [ZHGL-80], 150W [ZHGL-150],
 180W [ZHGL-180], 210W [ZHGL-210],
 240W [ZHGL-240], 270W [ZHGL-270], 400W [ZHGL-400]

Tested according to: EN 60598-1:2009
 EN 60598-2-1:2009
 EN 61330-3-8:2008

This Attestation of Compliance is issued according to the Directive 2004/108/EC relating to electro-magnetic compatibility on a voluntary basis. It confirms that the listed apparatus complies with all essential requirements of the EMC Directive and applies only to the sample and its technical documentation submitted to TÜV SÜD Product Service GmbH for testing and certification. See also notes on back.

Test report no.: 00742101676

Date: 2011-01-26
 (Louis Liu)

CE After preparation of the necessary technical documentation as well as the EC conformity declaration the required CE marking can be affixed on the market. Other relevant directives have to be observed.

Page 1 of 1

TÜV SÜD Product Service GmbH - Zertifikatsstelle - Biedersteiner Str. - 85354 München - Germany

Certificate of Conformity
 Low Voltage Directive 2006/95/EC

Holder of Certificate: Xi'an Zhihai Power Technology Co., Ltd.
 Block A, West Electronic Community, Xi'an, China

Report No.: LCOS11000005

Product: LED General Light

Model No.: ZHGL-30, ZHGL-60, ZHGL-80, ZHGL-120, ZHGL-150,
 ZHGL-180, ZHGL-210, ZHGL-240, ZHGL-270, ZHGL-400

Parameters: Rated Input Voltage: 100-240V~50/60Hz
 Protection class: II
 Degree of protection: IP65

Tested according to: EN 60598-1:2009
 EN 60598-2-1:2009
 EN 62471:2008
 Annex 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Conclusion: This Certificate of conformity is based on evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Holder's disposal. It is to certify that the tested sample is in conformity with all essential requirements of the EMC Directive and applies only to the sample and its technical documentation submitted to LCTECH. This certificate does not imply assessment of the production of the product and does not permit the use of CE mark of conformity. The holder of the certificate is deemed to be responsible for the conformity of the product with the EMC Directive. LCTECH does not assume any liability for the conformity of the product with the EMC Directive.

CE

LCTECH (Zhongshan) Testing Service Co., Ltd.
 27, Technology 1 Street, Zhongshan, Guangdong, China, Guangzhou Road
 Tel: +86 20 2281 3766 Fax: +86 20 2281 3719 E-mail: lcs@lctech.com

Certificate of Conformity
 European RoHS Directive 2011/65/EU (Recast of directive 2002/95/EC)

Holder of Certificate: Xi'an Zhihai Power Technology Co., Ltd.

Product: LED General Light

Model No.: ZHGL-400

Parameters: ZHGL-30, ZHGL-60, ZHGL-80, ZHGL-120, ZHGL-150, ZHGL-180,
 ZHGL-210, ZHGL-240, ZHGL-270, ZHGL-400

Test Report No.: LCOS11000284 (based on July 30, 2012)

Tested according to: IEC62521 Ed.1:2008:
 -> (Lead and its compounds)
 -Cd (Cadmium and its compounds)
 -Hg (Mercury and its compounds)
 -Cr⁶⁺ (Hexavalent Chromium and its compounds)
 -Pb (Polybrominated biphenyls)
 -Pb (Polybrominated diphenyl ethers)

Summary: This certificate of conformity is based on evaluation of a sample of the above mentioned product. Technical, Research, documentation are at the Holder's disposal. It is to certify that the tested sample is in conformity with European RoHS Directive 2011/65/EC (Recast of directive 2002/95/EC).

This certificate does not imply assessment of the production of the product and does not permit the use of CE mark of conformity.

LCTECH (Zhongshan) Testing Service Co., Ltd.
 27, Technology 1 Street, Zhongshan, Guangdong, China, Guangzhou Road
 Tel: +86 20 2281 3766 Fax: +86 20 2281 3719 E-mail: lcs@lctech.com

LED Catalogue Products

2021



First Full LED STS Crane installed in TCV at Valencia (by EDAE)

Model Genius II



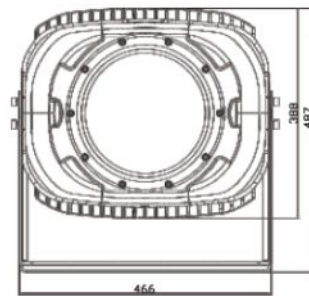
- New powerful LED light released, ultra solution for professional applications
- Updated 400W to 700W compact Genius Model with smaller size and lighter weight
- Flexible and reliable stainless steel mounting system
- Meanwell power supply available inside of the lamp

TYPICAL APPLICATIONS:

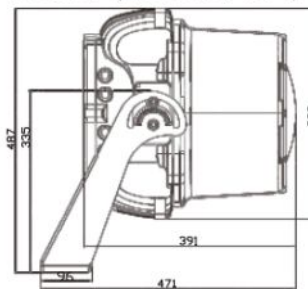
Sea Port | Airport | Bridge | Architecture | Industrial Facility | Stadium | High Mast | Plaza | Street

DIMENSION:

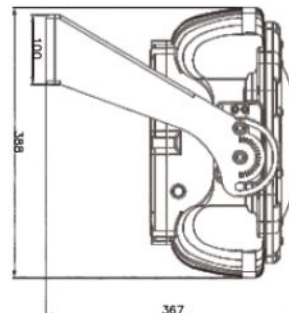
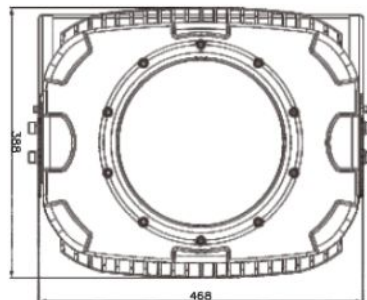
Genius II



P Series (15°, 20°, 30°)

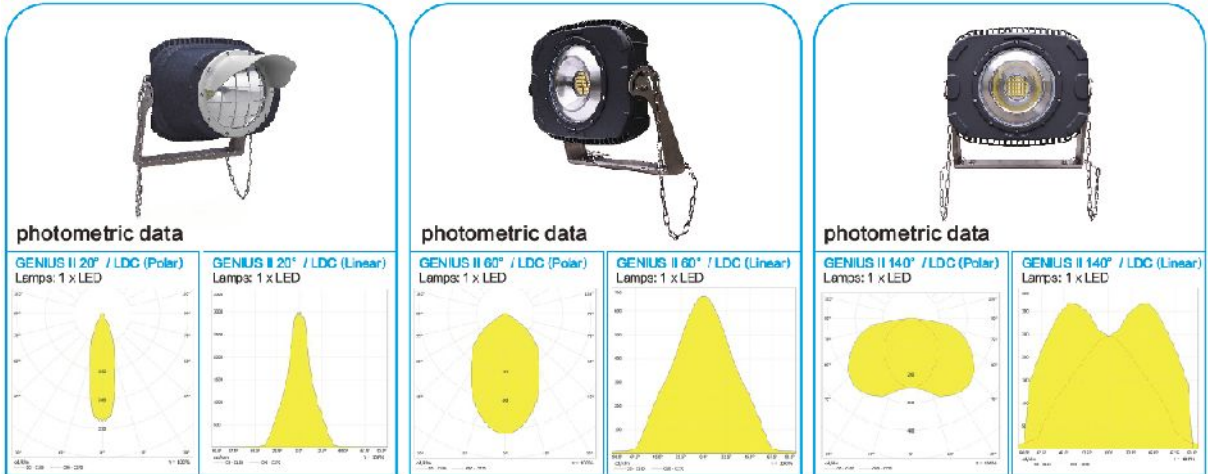


A Series (40°, 60°, 120°, 140×60°)



FEATURES

- ◆ 80% lumen maintenance over 50,000hours
- ◆ 80-600Vac input voltage without additional adapter
- ◆ 0-10Vdc & DALI dimming driver available
- ◆ Photocell & motion sensor system available
- ◆ Built-in surge protection & thermal protection
- ◆ Maintenance free
- ◆ Mercury free, No UV or IR
- ◆ High uniformity & color rendering index



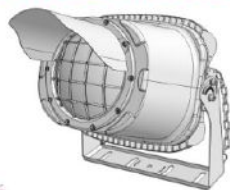
STAINLESS STEEL MOUNTING BRACKET:



OPTIONAL BEAM ANGLE:



OPTIONAL PROTECTION COVER AND VISOR FOR PROFESSIONAL APPLICATIONS:



SPECIFICATIONS:

Model		RGL2-200A	RGL2-300A	RGL2-400A	RGL2-500A	RGL2-600A	RGL2-700A
Power Consumption	LEDs	180W	270W	360W	450W	540W	630W
	Driver	20W	30W	40W	50W	60W	70W
	Total	200W	300W	400W	500W	600W	700W
Initial Lumen Flux		24000lm	48000lm	48000lm	60000lm	72000lm	84000lm
Replace HID Lamp		400~600W	600~800W	800~1000W	1000~1200W	1200~1500W	1500~1800W
Net Weight		15kg (33lbs)					
Beam Angle		40° 60° 120° 140°					
Color Temperature		2700-6500K					
Color Rendering		≥ Ra75					
Working Life		≥50000Hrs					
Housing		Aluminum & Powder coating					
IP Class		IP67					
Power Supply		Meanwell					
Working Temperature		-40C~60C/40F~140F					
AC Input		80~315Vac, (347Vac available on request)					
Power Factor		≥0.98					
Warranty		5 Years					

Model		RGL2-200P	RGL2-300P	RGL2-400P	RGL2-500P	RGL2-600P	RGL2-700P
Power Consumption	LEDs	180W	270W	360W	450W	540W	630W
	Driver	20W	30W	40W	50W	60W	70W
	Total	200W	300W	400W	500W	600W	700W
Initial Lumen Flux		24000lm	48000lm	48000lm	60000lm	72000lm	84000lm
Replace HID Lamp		400~600W	600~800W	800~1000W	1000~1200W	1200~1500W	1500~1800W
Net Weight		19kg (42lbs)					
Beam Angle		15° 20° 30°					
Color Temperature		2700-6500K					
Color Rendering		≥ Ra75					
Working Life		≥50000Hrs					
Housing		Aluminum & Powder coating					
IP Class		IP67					
Power Supply		Meanwell					
Working Temperature		-40C~60C/40F~140F					
AC Input		80~315Vac, (347Vac available on request)					
Power Factor		≥0.98					
Warranty		5 Years					

❖ Efficiency from 101lm/W to 139lm/W pending on Power and Beam Angle.

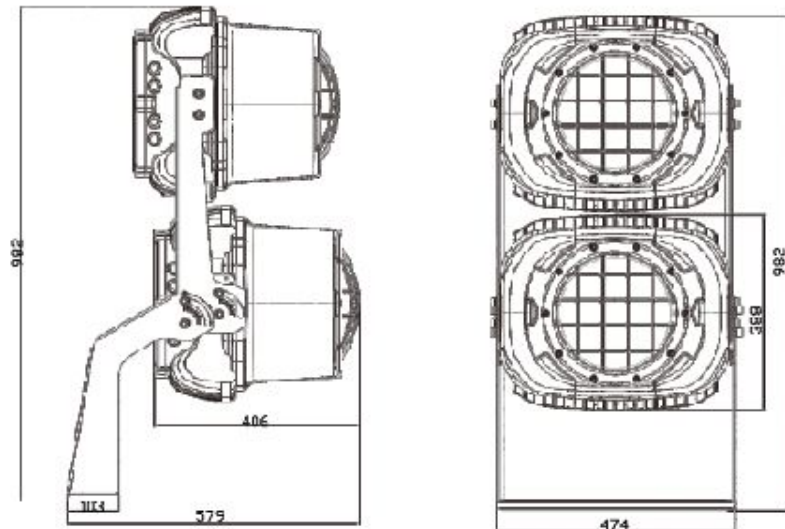


- New powerful LED light released, ultra solution for professional applications
- Updated 800W to 1400W double Genius Model with flexible installation
- Flexible and reliable stainless steel mounting system
- Meanwell power supply available inside of the lamp

TYPICAL APPLICATIONS:

Sea Port | Airport | Bridge | Architecture | Industrial Facility | Stadium | High Mast | Plaza | Street

DIMENSION:



FEATURES:

- ◆ 5 year warranty
- ◆ 80% lumen maintenance over 50,000hours
- ◆ 80-600Vac input voltage without additional adapter
- ◆ 0-10Vdc & DALI dimming driver available
- ◆ Photocell & motion sensor system available
- ◆ Built-in surge protection & thermal protection
- ◆ Maintenance free
- ◆ Mercury free, No UV or IR
- ◆ Instant start & flicker free
- ◆ High uniformity & color rendering index

❖ Efficiency from 101lm/W to 139lm/W pending on Power and Beam Angle.

OPTIONAL BEAM ANGLE:



15°



20°



60°

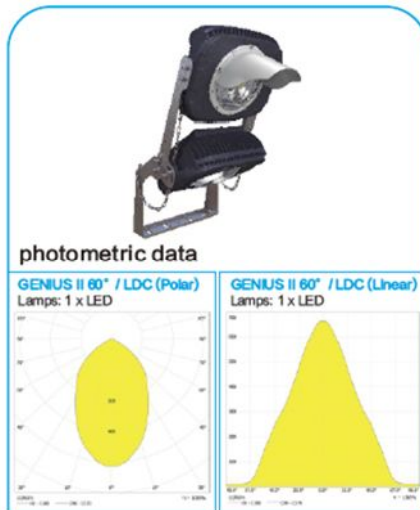
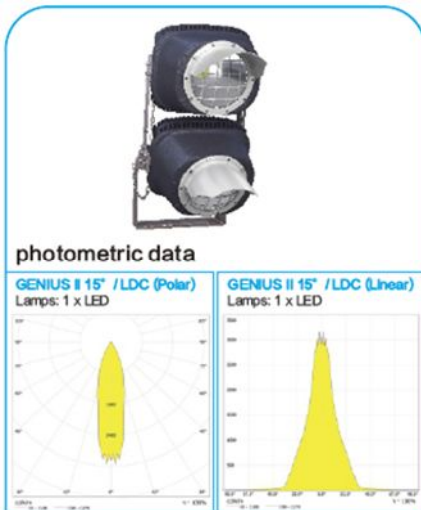


120°



140x60° (PC)

OPTIONAL PROTECTION COVER:



SPECIFICATIONS:

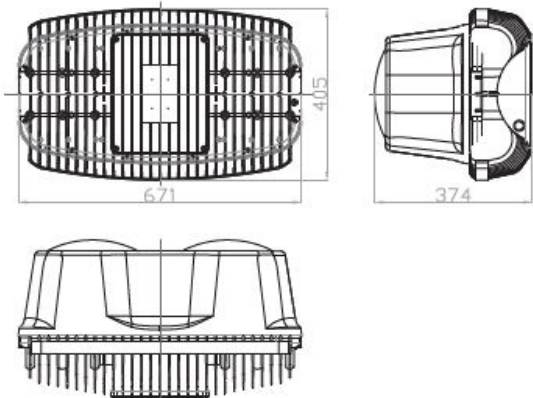
Model		RGL2-800A	RGL2-1000A	RGL2-1200A	RGL2-1400A
Power Consumption	LEDs	720W	900W	1080W	1260W
	Driver	80W	100W	120W	140W
	Total	800W	1000W	1200W	1400W
Initial Lumen Flux		96000lm	120000lm	144000lm	168000lm
Replace HID Lamp		1800~2200W	2200~2500W	2500~3000W	3000~3500W
Net Weight		30kg (66lbs)			
Beam Angle		40° 60° 120° 140°			
Color Temperature		2700-6500K			
Color Rendering		≥ Ra75			
Working Life		≥50000Hrs			
Housing		Aluminum & Powder coating			
IP Class		IP67			
Power Supply		Meanwell			
Working Temperature		-40C~60C/40F~140F			
AC Input		80~315Vac, (347Vac available on request)			
Power Factor		≥0.98			
Warranty		5 Years			

Model		RGL2-800P	RGL2-1000P	RGL2-1200P	RGL2-1400P
Power Consumption	LEDs	720W	900W	1080W	1260W
	Driver	80W	100W	120W	140W
	Total	800W	1000W	1200W	1400W
Initial Lumen Flux		96000lm	120000lm	144000lm	168000lm
Replace HID Lamp		1800~2200W	2200~2500W	2500~3000W	3000~3500W
Net Weight		38kg (84lbs)			
Beam Angle		15° 20° 30°			
Color Temperature		2700-6500K			
Color Rendering		≥ Ra75			
Working Life		≥50000Hrs			
Housing		Aluminum & Powder coating			
IP Class		IP67			
Power Supply		Meanwell			
Working Temperature		-40C~60C/40F~140F			
AC Input		80~315Vac, (347Vac available on request)			
Power Factor		≥0.98			
Warranty		5 Years			

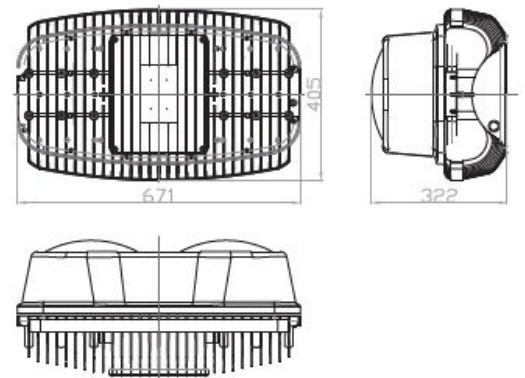
Model ZHGL 1000P

Mechanical Information		
	ZHGL 1000P-L15	ZHGL 1000P-L20
Dimension	671x405x374mm	671x405x322mm
Net Weight	29 kg (64 lbs) with stainless steel floodlight bracket	
Colour Temperature	5700K (2700 ~ 6500K available on request)	
Colour Rendering	≥ Ra75 (≥ Ra80, ≥ Ra90 available on request)	
Housing Material	Aluminium	
Coating	Zinc Rich Paint	

ZHGL-1000P-L15



ZHGL-1000P-L20



Characteristics
1000W system power & 120.000 lumen
5-year warranty
80% lumen maintenance over 50.000 hours
80-600 Vac input voltage without additional adapter
0-10Vdc & DALI dimming driver available
Photocell & motion sensor system available
Built – in surge protection and thermal protection
Maintenance free
Mercury free, No UV or IR
Instant start and flicker free
High uniformity and colour rendering

Model ZHGL 1000A

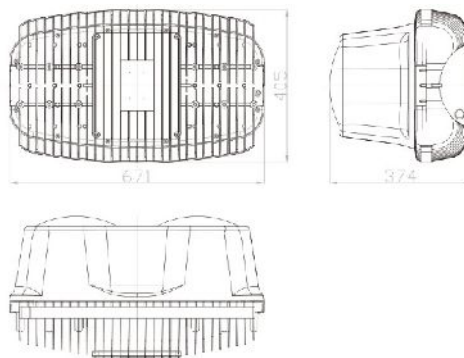


Genius ULTRA LED Light

Specifications			
	ZHGL 1000A-L60	ZHGL 1000A-L120	ZHGL 1000A-L140
Beam Angle	60°	120°	140° x 60°
Stable Flux (5700K after 1 hour)	110.000lm	120.000lm	102.000lm
Power Consumption	1000W		
Replace HID Lamp	2000W – 3000W		
Working Life	≥ 50000 Hrs		
IP Class	IP 65 (Upgradeable to IP 67)		
Insulation Class	Class I		
Working Temperature	-40C ~ 60C / -40F ~ 140F		
Working Humidity	10% ~ 95%		
AC Input	80 ~ 360 Vac, 400 ~ 600 Vac		
DC Input	100 ~ 400 Vdc, 500 ~ 800 Vdc		
Power Factor	≥ 0.98		

Model ZHGL 1000A

Mechanical Information			
	ZHGL 1000A-L60	ZHGL 1000A-L120	ZHGL 1000A-L140
Dimension	671x405x204mm		
Net Weight	29 kg (64 lbs) with stainless steel floodlight bracket		
Colour Temperature	5700K (2700 ~ 6500K available on request)		
Colour Rendering	≥ Ra75 (≥ Ra80, ≥ Ra90 available on request)		
Housing Material	Aluminium		
Coating	Zinc Rich Paint		



Characteristics
1000W system power & 120.000 lumen
5-year warranty
80% lumen maintenance over 50.000 hours
80-600 Vac input voltage without additional adapter
0-10Vdc & DALI dimming driver available
Photocell & motion sensor system available
Built – in surge protection and thermal protection
Maintenance free
Mercury free, No UV or IR
Instant start and flicker free
High uniformity and colour rendering

Model ZHGL 800P

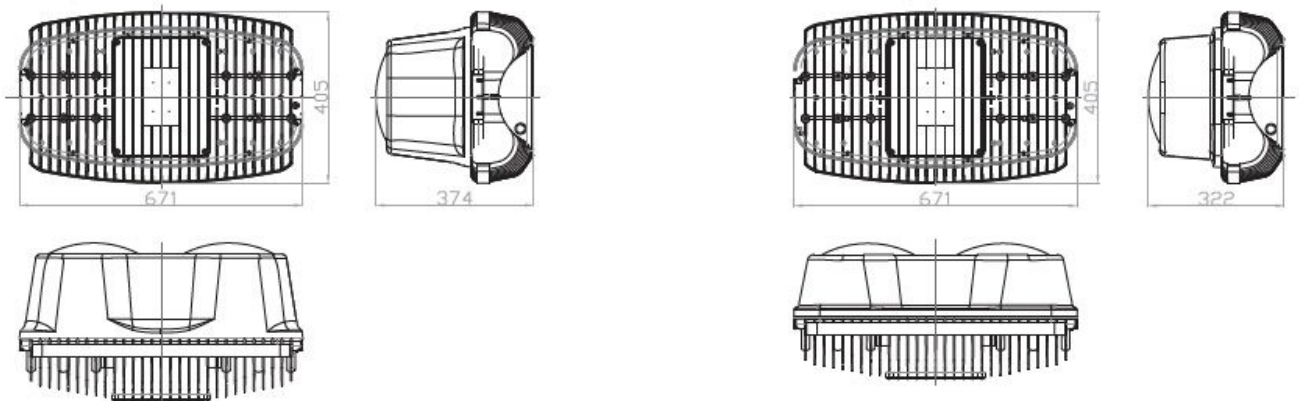


	Specifications	
	ZHGL 800P-L15	ZHGL 800P-L20
Beam Angle	15°	20°
Stable Flux (5700K after 1 hour)	88.000lm	88.000lm
Dimension	671x405x374mm	671x405x322mm
Power Consumption	800W	
Replace HID Lamp	1500W – 2500W	
Working Life	≥ 50000 Hrs	
IP Class	IP 65 (Upgradeable to IP 67)	
Insulation Class	Class I	
Working Temperature	-40C ~ 60C / -40F ~ 140F	
Working Humidity	10% ~ 95%	
AC Input	80 ~ 360 Vac, 400 ~ 600 Vac	
DC Input	100 ~ 400 Vdc, 500 ~ 800 Vdc	
Power Factor	≥ 0.98	



Model ZHGL 800P

Mechanical Information		
	ZHGL 800P-L15	ZHGL 800P-L20
Dimension	671x405x374mm	671x405x322mm
Net Weight	29 kg (64 lbs) with stainless steel floodlight bracket	
Colour Temperature	5700K (2700 ~ 6500K available on request)	
Colour Rendering	≥ Ra75 (≥ Ra80, ≥ Ra90 available on request)	
Housing Material	Aluminium	
Coating	Zinc Rich Paint	



Characteristics
5-year warranty
80% lumen maintenance over 50.000 hours
80-600 Vac input voltage without additional adapter
0-10Vdc & DALI dimming driver available
Photocell & motion sensor system available
Built – in surge protection and thermal protection
Maintenance free
Mercury free, No UV or IR
Instant start and flicker free
High uniformity and colour rendering

Model ZHGL 800A

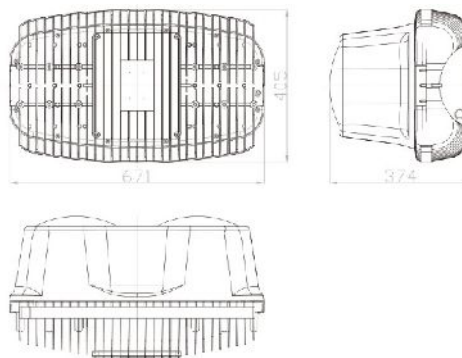


Specifications			
	ZHGL 800A-L60	ZHGL 800A-L120	ZHGL 800A-L140
Beam Angle	60°	120°	140° x 60°
Stable Flux (5700K after 1 hour)	96.100lm	100.000lm	90.000lm
Power Consumption	800W		
Replace HID Lamp	1500W – 2500W		
Working Life	≥ 50000 Hrs		
IP Class	IP 65 (Upgradeable to IP 67)		
Insulation Class	Class I		
Working Temperature	-40C ~ 60C / -40F ~ 140F		
Working Humidity	10% ~ 95%		
AC Input	80 ~ 360 Vac, 400 ~ 600 Vac		
DC Input	100 ~ 400 Vdc, 500 ~ 800 Vdc		
Power Factor	≥ 0.98		



Model ZHGL 800A

Mechanical Information			
	ZHGL 800A-L60	ZHGL 800A-L120	ZHGL 800A-L140
Dimension	671x405x204mm		
Net Weight	29 kg (64 lbs) with stainless steel floodlight bracket		
Colour Temperature	5700K (2700 ~ 6500K available on request)		
Colour Rendering	≥ Ra75 (≥ Ra80, ≥ Ra90 available on request)		
Housing Material	Aluminium		
Coating	Zinc Rich Paint		



Characteristics
5-year warranty
80% lumen maintenance over 50.000 hours
80-600 Vac input voltage without additional adapter
0-10Vdc & DALI dimming driver available
Photocell & motion sensor system available
Built – in surge protection and thermal protection
Maintenance free
Mercury free, No UV or IR
Instant start and flicker free
High uniformity and colour rendering

Model ZHGL 600P

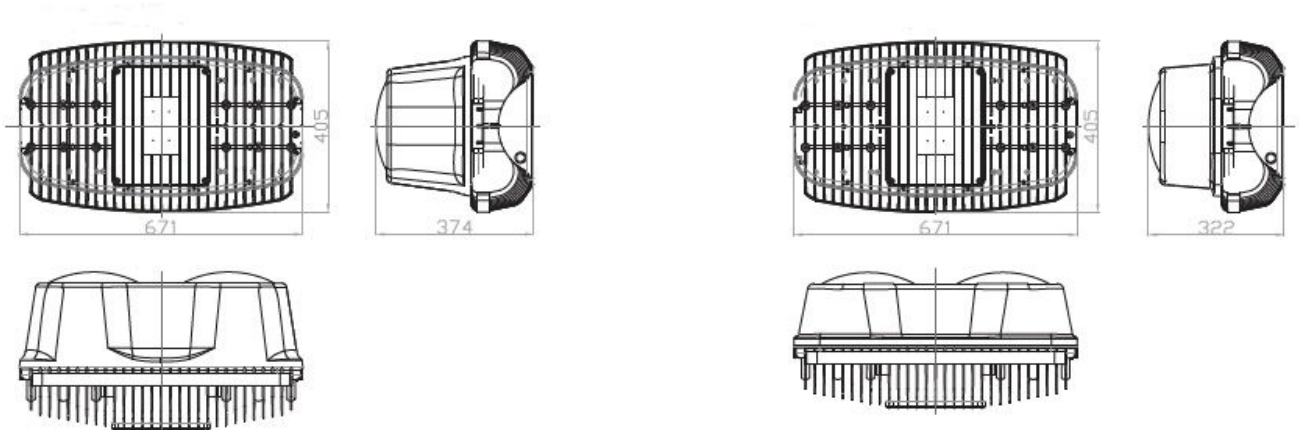


	Specifications	
	ZHGL 600P-L15	ZHGL 600P-L20
Beam Angle	15°	20°
Stable Flux (5700K after 1 hour)	66.000lm	66.000lm
Dimension	671x405x374mm	671x405x322mm
Power Consumption	600W	
Replace HID Lamp	1000W – 2000W	
Working Life	≥ 50000 Hrs	
IP Class	IP 65 (Upgradeable to IP 67)	
Insulation Class	Class I	
Working Temperature	-40C ~ 60C / -40F ~ 140F	
Working Humidity	10% ~ 95%	
AC Input	80 ~ 360 Vac, 400 ~ 600 Vac	
DC Input	100 ~ 400 Vdc, 500 ~ 800 Vdc	
Power Factor	≥ 0.98	



Model ZHGL 600P

Mechanical Information		
	ZHGL 600P-L15	ZHGL 600P-L20
Dimension	671x405x374mm	671x405x322mm
Net Weight	29 kg (64 lbs) with stainless steel floodlight bracket	
Colour Temperature	5700K (2700 ~ 6500K available on request)	
Colour Rendering	≥ Ra75 (≥ Ra80, ≥ Ra90 available on request)	
Housing Material	Aluminium	
Coating	Zinc Rich Paint	



Characteristics
5-year warranty
80% lumen maintenance over 50.000 hours
80-600 Vac input voltage without additional adapter
0-10Vdc & DALI dimming driver available
Photocell & motion sensor system available
Built – in surge protection and thermal protection
Maintenance free
Mercury free, No UV or IR
Instant start and flicker free
High uniformity and colour rendering

Model ZHGL 600A

Genius ULTRA LED Light

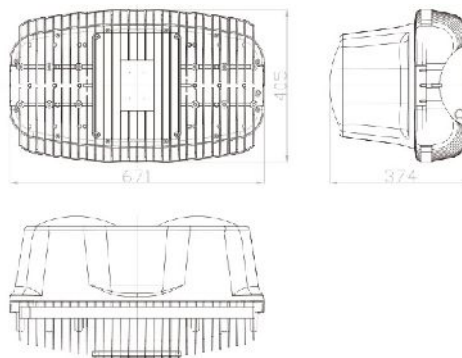


Specifications			
	ZHGL 600A-L60	ZHGL 600A-L120	ZHGL 600A-L140
Beam Angle	60°	120°	140° x 60°
Stable Flux (5700K after 1 hour)	73.000lm	76.000lm	68.000lm
Power Consumption	600W		
Replace HID Lamp	1000W – 2000W		
Working Life	≥ 50000 Hrs		
IP Class	IP 65 (Upgradeable to IP 67)		
Insulation Class	Class I		
Working Temperature	-40C ~ 60C / -40F ~ 140F		
Working Humidity	10% ~ 95%		
AC Input	80 ~ 360 Vac, 400 ~ 600 Vac		
DC Input	100 ~ 400 Vdc, 500 ~ 800 Vdc		
Power Factor	≥ 0.98		



Model ZHGL 600A

Mechanical Information			
	ZHGL 600A-L60	ZHGL 600A-L120	ZHGL 600A-L140
Dimension	671x405x204mm		
Net Weight	29 kg (64 lbs) with stainless steel floodlight bracket		
Colour Temperature	5700K (2700 ~ 6500K available on request)		
Colour Rendering	≥ Ra75 (≥ Ra80, ≥ Ra90 available on request)		
Housing Material	Aluminium		
Coating	Zinc Rich Paint		



Characteristics
5-year warranty
80% lumen maintenance over 50.000 hours
80-600 Vac input voltage without additional adapter
0-10Vdc & DALI dimming driver available
Photocell & motion sensor system available
Built – in surge protection and thermal protection
Maintenance free
Mercury free, No UV or IR
Instant start and flicker free
High uniformity and colour rendering

Model ZHGL 400P



Genius LED Light



Specifications

Power Consumption	400 W
Initial Lumen Flux (6000K)	44000lm
Replace HID Lamp	1000W – 2000W
Working Life	≥ 50000 Hrs
IP Class	IP 65 (Upgradeable to IP 67)
Insulation Class	Class I (Upgradeable to Class II)
Working Temperature	-40C ~ 60C / -40F ~ 140F
Working Humidity	10% ~ 95%
AC Input	80 ~ 315 Vac
DC Input	80 ~ 400 VDC
Power Factor	≥ 0.98

Mechanical Information

Dimension	670x370x300mm
Net Weight	18 kg (39.61 lbs)
Colour Temperature	4000K (warm white) / 6000K (cool white)
Colour Rendering	≥ Ra75
Housing Material	Aluminium
Coating	Zinc Rich Paint



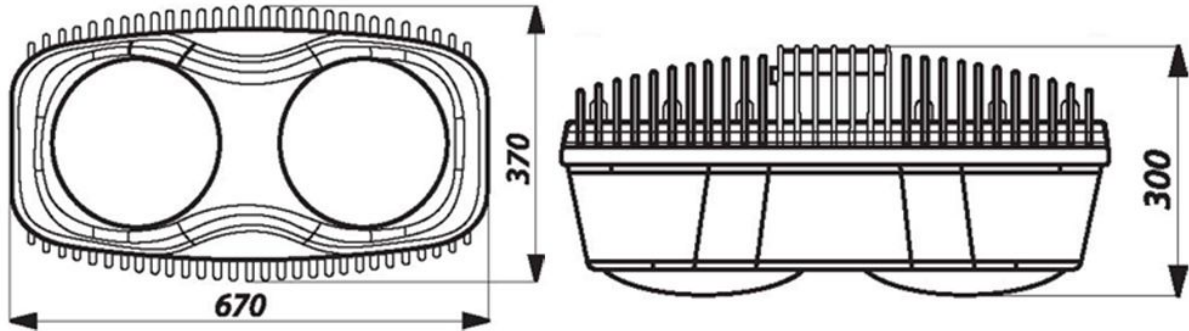


View of a ring with 400WP at 42m height. Noatum. Valencia. Spain



View of some 400WP on one STS at 52m height. TCV. Valencia. Spain

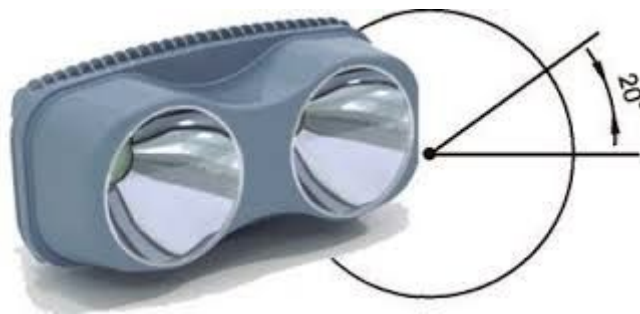
Model ZHGL 400P



Genius LED Light

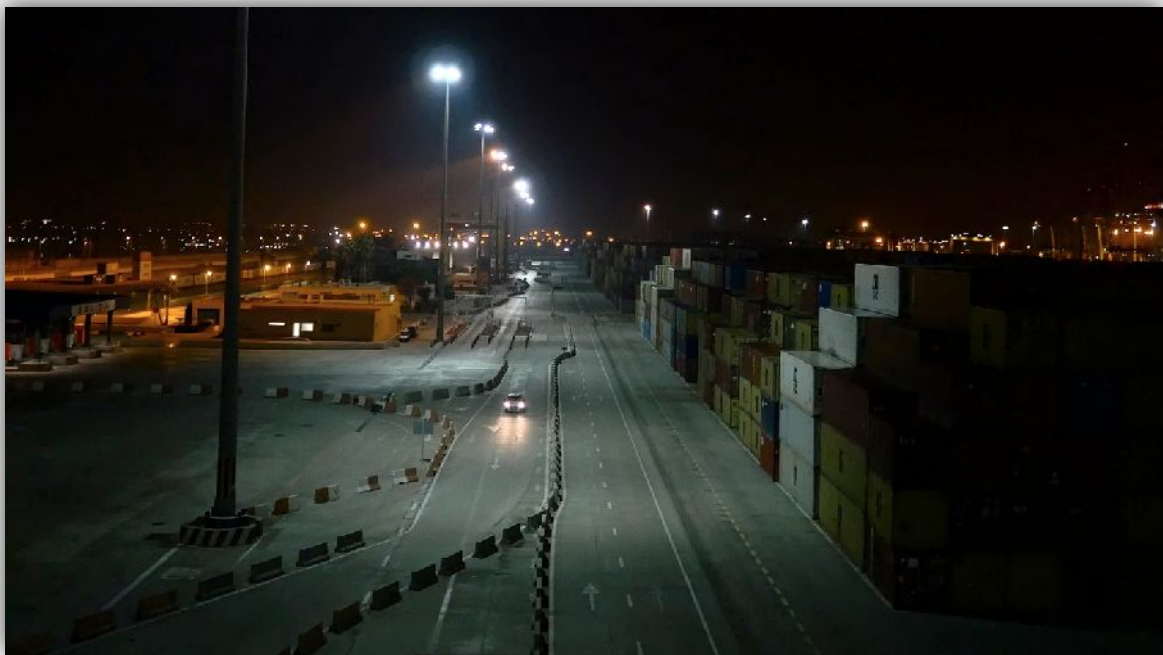
Characteristics

- 20° beam angle for long distance projection lighting applications
- Patent multi – function design, suitable for all projects
- 5 years' manufacturer warranty
- Top performance grade LED chips, 110 lm/w lamp efficacy
- Built – in surge protection
- Built – in thermal protection
- Maintenance free
- Mercury free, No UV or IR
- Instant start and flicker free
- High uniformity and colour rendering





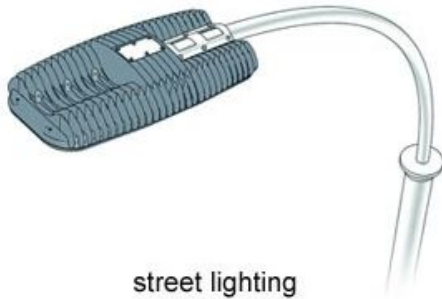
View of Lighted Street at Noatum Terminal Port of Valencia. Spain



Another perspective of Noatum Lighted Street. Valencia. Spain.

Model ZHGL 400A

Genius LED Light



street lighting

Specifications	
Power Consumption	400 W
Initial Lumen Flux (6000K)	48000lm
Replace HID Lamp	1000W – 2000W
Working Life	≥ 50000 Hrs
IP Class	IP 65 (Upgradeable to IP 67)
Insulation Class	Class I (Upgradeable to Class II)
Working Temperature	-40C ~ 60C / -40F ~ 140F
Working Humidity	10% ~ 95%
AC Input	80 ~ 315 Vac
DC Input	80 ~ 400 VDC
Power Factor	≥ 0.98

Mechanical Information	
Dimension	670x370x180mm
Net Weight	16 kg (35 lbs)
Colour Temperature	2000K / 6000K
Colour Rendering	≥ Ra75
Housing Material	Aluminium
Coating	Zinc Rich Paint



pendent lighting

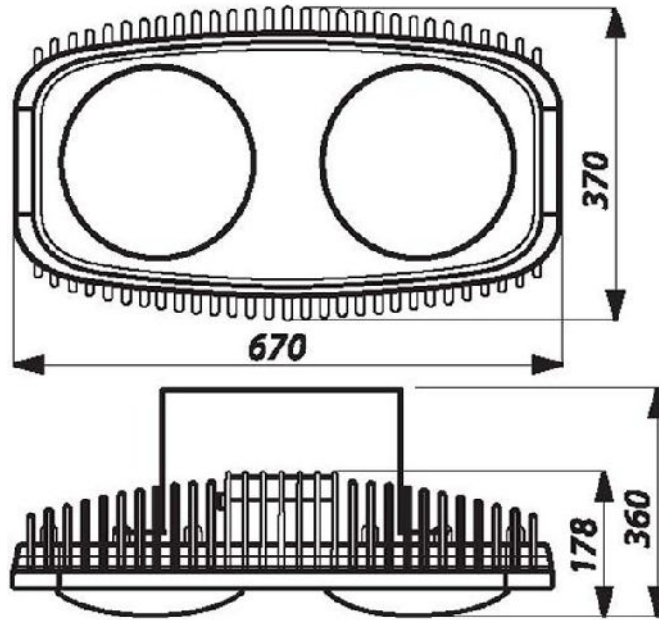


Detail of mounting to have a good lighting performance at Noatum Port Terminal, Valencia, Spain



Detail of 400WA Luminaire

Model ZHGL 400A



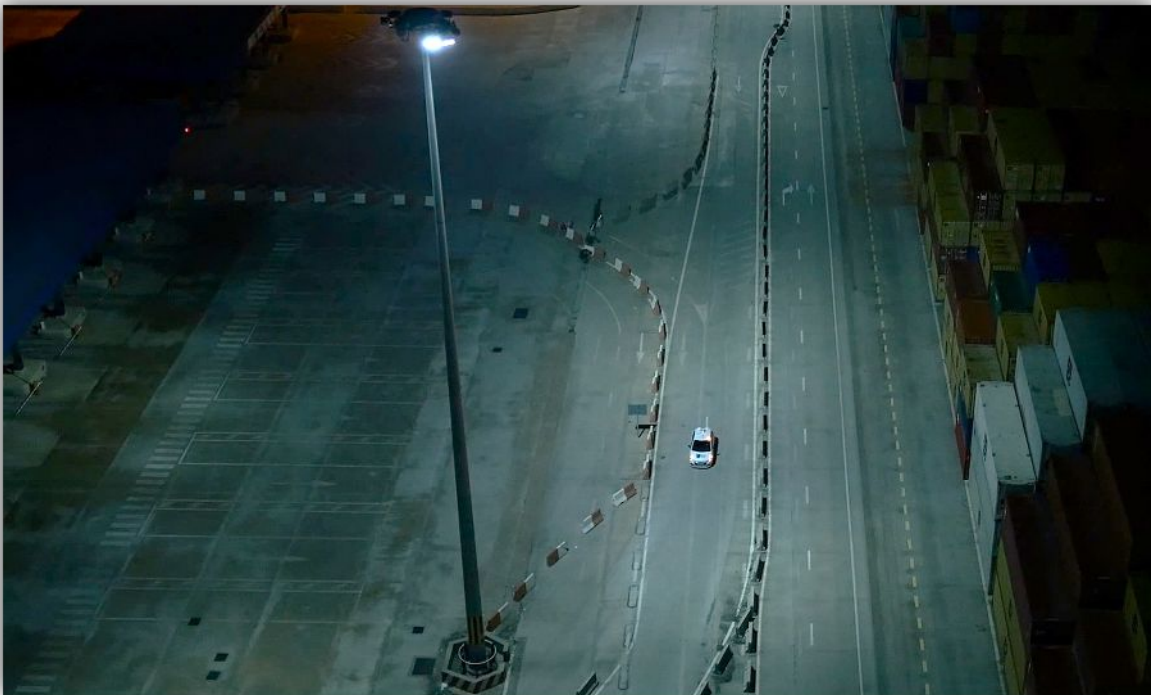
Characteristics

- Patent multi – function design, suitable for all projects
- 5 years' manufacturer warranty
- Top performance grade LED chips, 120 lm/w lamp efficacy
- Built – in surge protection
- Built – in thermal protection
- Maintenance free
- Mercury free, No UV or IR
- Instant start and flicker free
- High uniformity and colour rendering





Costa wharf at Noatum Container Terminal Valencia



View of one Pole lighting at 42m height, from higher height. Noatum. Valencia. Spain.

Models ZHGL 30P-270P



Genius LED Light

Specifications

	30W	60W	90W	120W	150W	180W	210W	270W
Power Consumption	30W	60W	90W	120W	150W	180W	210W	270W
Initial Lumen Flux (6000K)	3300lm	6600lm	9900lm	13200lm	16500lm	19800lm	23100lm	29700lm
Replace HID Lamp	50-100W	100-150W	150-250W	250-300W	300-400W	400-500W	500-600W	600-1000W
Working Life	≥ 50000 Hrs							
IP Class	IP 65 (Upgradeable to IP 67)							
Insulation Class	Class I (Upgradeable to Class II)							
Working Temperature	-40C ~ 60C / -40F ~ 140F							
Working Humidity	10% ~ 95%							
AC Input	80 ~ 315 Vac							
DC Input	80 ~ 400 VDC							
Power Factor	≥ 0.98							

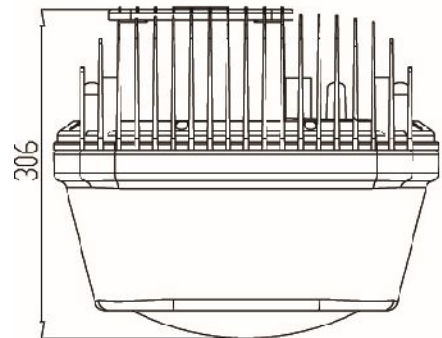
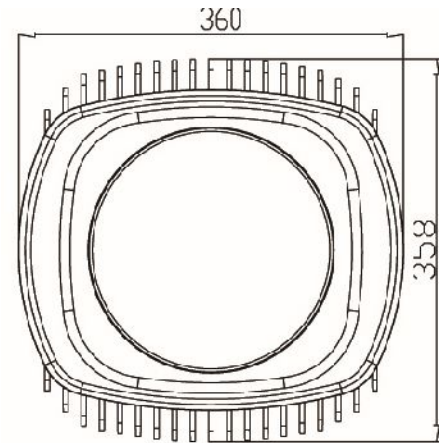


View of the First STS Crane in the world entirely fitted with LED by EDAE. TCV. Valencia. Spain.

Models ZHGL 30P-270P

Genius LED Light

Mechanical Information	
Dimension	360x358x306mm
Net Weight	13 kg (28.6 lbs)
Colour	4000K (warm white) / 6000K (cool white)
Temperature	
Colour Rendering	≥ Ra75
Housing Material	Aluminium
Coating	Zinc Rich Paint



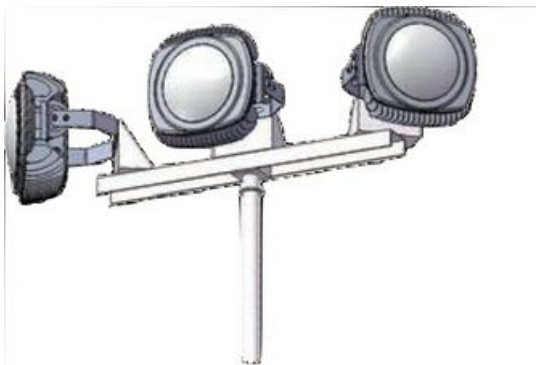
Characteristics
20° beam angle for long distance projection lighting applications
Patent multi – function design, suitable for all projects
5 years’ manufacturer warranty
Top performance grade LED chips, 120 lm/w lamp efficacy
Built – in surge protection
Built – in thermal protection
Maintenance free
Mercury free, No UV or IR
Instant start and flicker free
High uniformity and colour rendering



View of RTG fitted with LED, from Zhihai, designed by EDAE in TCV, a TCB Group Company. Valencia. Spain

Models ZHGL 30A-270A

Genius LED Light



Specifications

	30W	60W	90W	120W	150W	180W	210W	270W
Power Consumption	30W	60W	90W	120W	150W	180W	210W	270W
Initial Lumen Flux (6000K)	3600lm	7200lm	10800lm	14400lm	18000lm	21600lm	25200lm	32400lm
Replace HID Lamp	50-100W	100-150W	150-250W	250-300W	300-400W	400-500W	500-600W	600-1000W
Working Life	≥ 50000 Hrs							
IP Class	IP 65 (Upgradeable to IP 67)							
Insulation Class	Class I (Upgradeable to Class II)							
Working Temperature	-40C ~ 60C / -40F ~ 140F							
Working Humidity	10% ~ 95%							
AC Input	80 ~ 315 Vac							
DC Input	80 ~ 400 VDC							
Power Factor	≥ 0.98							

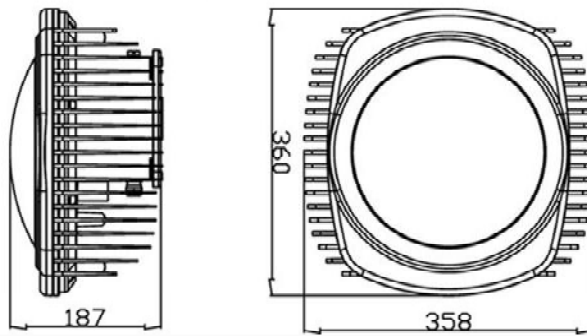


View of lighting level achieved under Girder of a STS Superpanamax. 300lx with 65% energy savings. By EDAE engineering, at TCV Terminal. Valencia. Spain



View of three 120° Zihai Luminaire in a Pole.

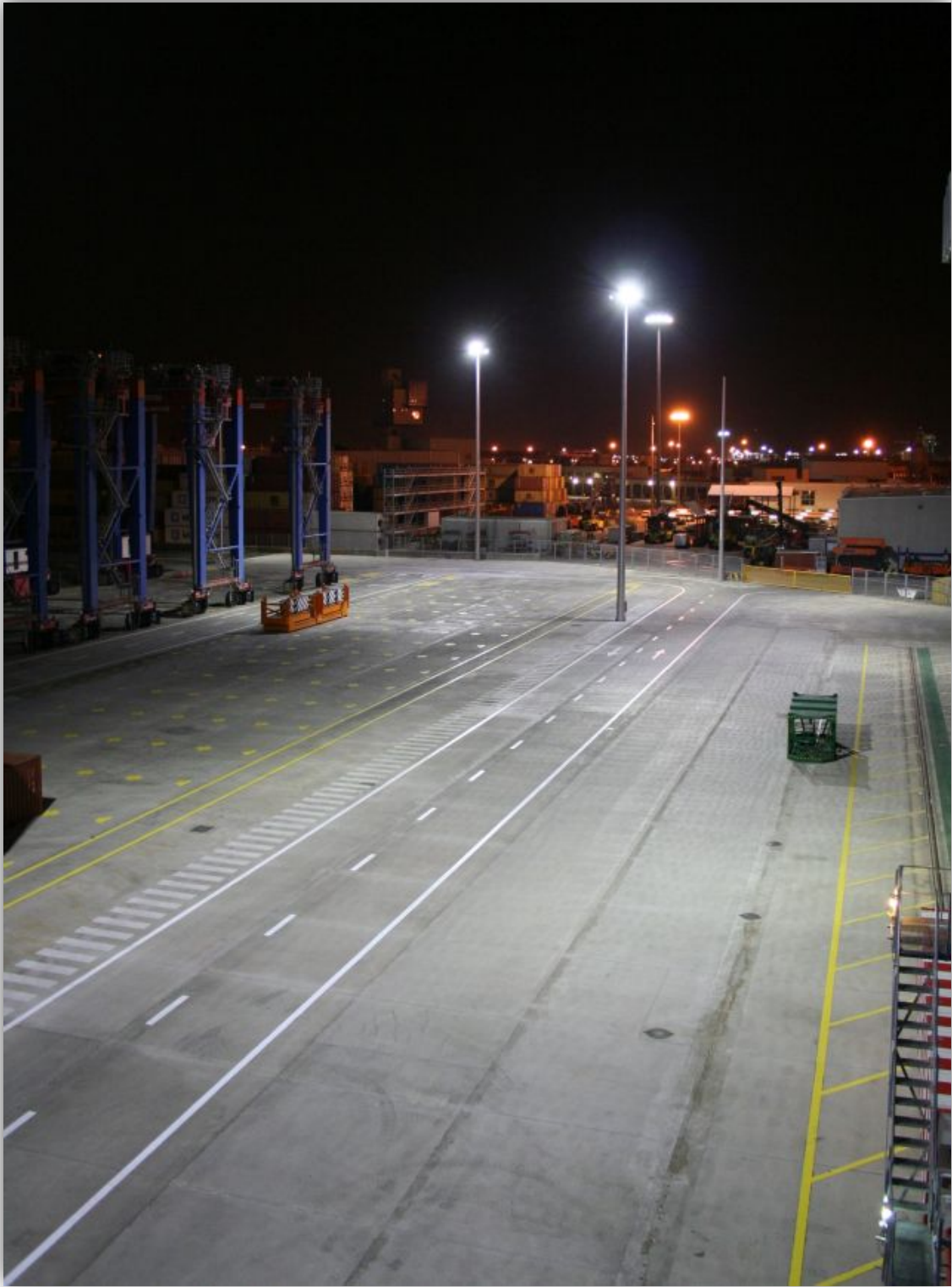
Models ZHGL 30A-270A



Mechanical Information	
Dimension	360x358x187mm
Net Weight	10 kg (22 lbs)
Colour Temperature	4000K (warm white) / 6000K (cool white)
Colour Rendering	≥ Ra75
Housing Material	Aluminium
Coating	Zinc Rich Paint

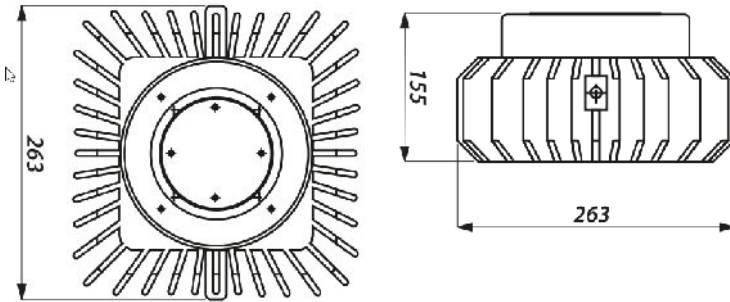
Characteristics
Patent multi – function design, suitable for all projects
5 years’ manufacturer warranty
Top performance grade LED chips, 120 lm/w lamp efficacy
Built – in surge protection
Built – in thermal protection
Maintenance free
Mercury free, No UV or IR
Instant start and flicker free
High uniformity and colour rendering





Costa wharf at Noatum Container Terminal Valencia

Models ZHHB 60A-180A



Mechanical Information	
Dimension (Body)	263x263x155mm
Net Weight	8 kg (17,6 lbs)
Colour Temperature	2000K (warm white) / 6000K (cool white)
Colour Rendering	≥ Ra80
Housing Material	Aluminium
Coating	Zinc Rich Paint

Characteristics

Patent design, ideal for industrial and commercial applications
5 years' manufacturer warranty
Top performance grade LED chips, 110 lm/w lamp efficacy
Built – in surge protection
Built – in thermal protection
Maintenance free
Mercury free, No UV or IR
Instant start and flicker free
Universal 80-347Vac input without additional adapter
High uniformity and colour rendering





Specifications

	ZHHB-60A	ZHHB-90A	ZHHB-120A	ZHHB-150A	ZHHB-180A
Power Consumption	60W	90W	120W	150W	180W
Initial Lumen Flux (6000K)	6600lm	9900lm	13200lm	16500lm	19800lm
Replace HID Lamp	100–150W	150–250W	250–300W	200–400W	400–600W
Working Life	≥ 50000 Hrs				
IP Class	IP 65 (Upgradeable to IP 67)				
Insulation Class	Class I (Upgradeable to Class II)				
Working Temperature	-40C ~ 60C / -40F ~ 140F				
Working Humidity	10% ~ 95%				
AC Input	80 ~ 315 Vac (347Vac available on request)				
DC Input	80 ~ 400 VDC (12Vdc, 24Vdc and other input available on request)				
Power Factor	≥ 0.98				



Gates with HMET Luminaires on one side



At other side, the view of another gate with 65% less of energy consumption.

LED FLOOD LIGHT

Led MODULAR lights



FEATURES

Features: Side Fixed Meanwell drivers for outstanding heat dissipation and easy maintenance.

Lumileds and Samsung LEDs with more than 120lm/w system efficiency.

Model: ZHFL-C-200, ZHFL-C-400, ZHFL-C-600, ZHFL-C-800

Rated Power: 200W, 400W, 600W, 800W

Input Voltage: AC90-295V

Color temperature: 2700-6500K

Lamp Efficiency: 120lm/w

Beam angle: 10, 30, 60, 85x135°

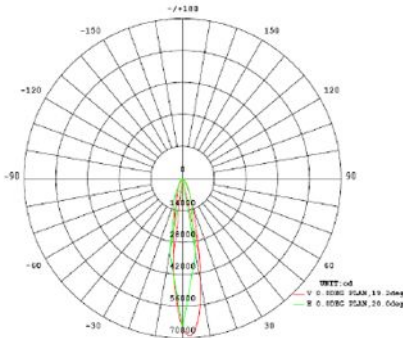
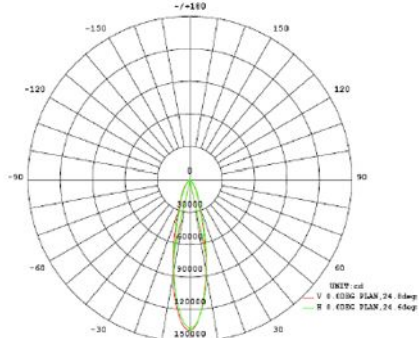
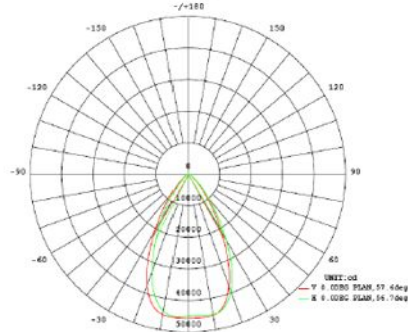
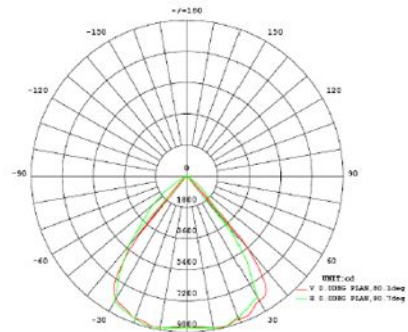
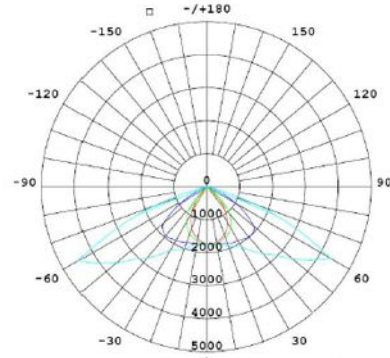
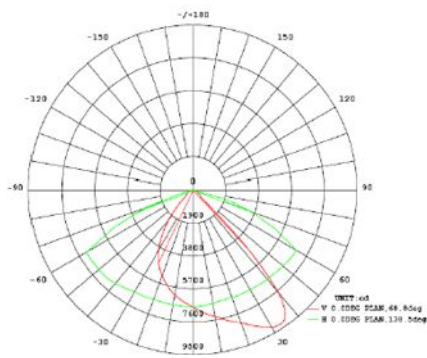
CRI: Ra ≥ 70

IP Grade: IP65

Certificate: ETL, DLC, CE, RoHS

Warranty: 5 years

Model	ZHFL-C-200	ZHFL-C-400	ZHFL-C-600	ZHFL-C-800
Size	404*306*340mm	404*486*340mm	404*666*340mm	304*952*340mm
Rated Power	200W	400W	600W	800W
Working Voltage	AC90-295V 50-60Hz			
LED Chip	Lumileds, Samsung			
Power Supply	Meanwell HLG			
Color Temperature	2700-6500K			
Luminous Flux	24000lm	48000 lm	72000 lm	96000 lm
CRI	>75			
Materials	PC+Aluminum			
Beam Angle	15、30、60、90、65x135、85x135			
IP Grade	IP65			
Package	11kg/1pcs/Carton	17.5kg/1pcs/Carton	26kg/1pcs/Carton	34kg/1pcs/Carton
Carton Size	346*390*326mm	526*390*326mm	920*460*340mm	920*460*340mm
Net Weight	10kg/pcs	16.4kg	24kg	32kg
Power Factor	0.95			
Insulation Class	Class I			
Warranty	5 years			
Certificates	CE, ROHS, ETL			





FEATURES

Features: Module LEDs design and Meanwell drivers for outstanding heat dissipation and easy maintenance. Lumileds and Samsung LEDs with more than 120lm/w system efficiency.

Model: ZHFL-S-50, ZHFL-S-80, ZHFL-S-100, ZHFL-S-120, ZHFL-S-150, ZHFL-S-200, ZHFL-S-300, ZHFL-S-400, ZHFL-S-600,

Rated Power: 50W,80W,100W,120W,150W,200W,300W ,400W

Input Voltage: AC85-265V

Color temperature: 2700-6500K

Lamp Efficiency: 120lm/w

Beam Angle: 10,30, 60, 85*135degree

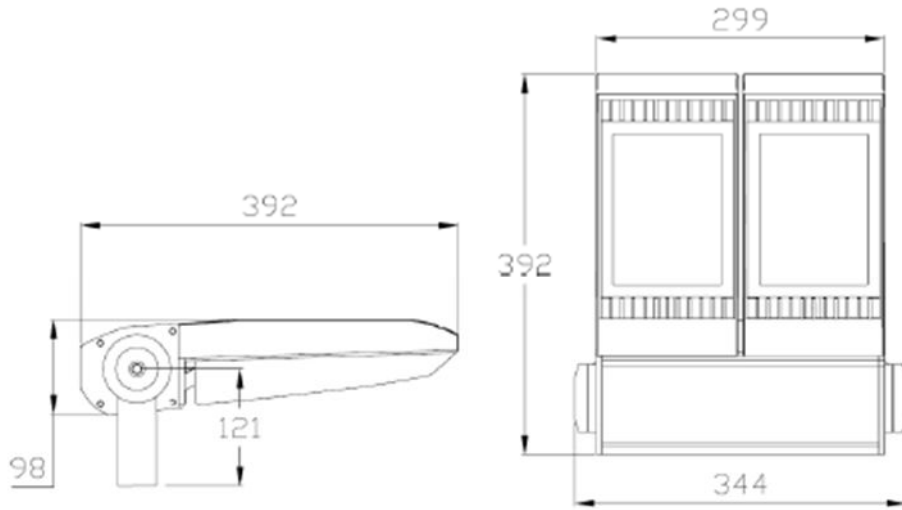
CRI: Ra≥70

IP Grade: IP65

Certificate: ETL, DLC, CE, RoHS

Warranty: 5 years

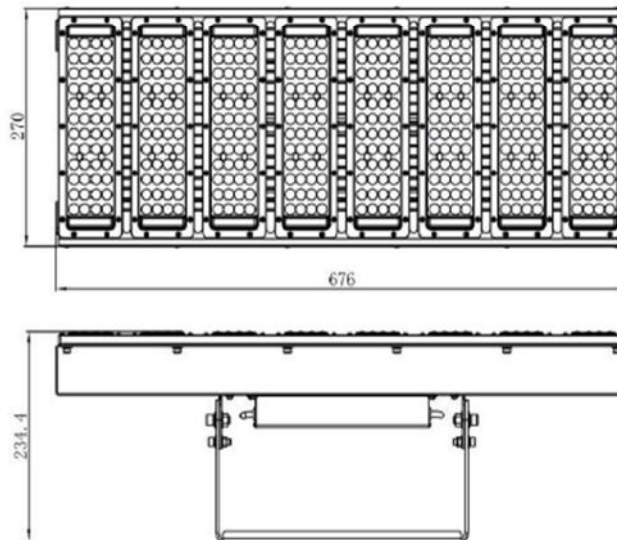
Model	ZHFL-S-50	ZHFL-S-80	ZHFL-S-100	ZHFL-S-120	ZHFL-S-150	ZHFL-S-200	ZHFL-S-300	ZHFL-S-400	ZHFL-S-600
Size(mm)	287*241*62	333*290*66		392*344*98		392*496*98	392*648*98	539*675*139	694*675*139
Rated Power	50W	80W	100W	120W	150W	200W	300W	400W	600W
Working Voltage	AC90-295V 50-60Hz								
Power Supply	Meanwell HLG								
LED Chip	Lumileds, Samsung								
Color Temperature	2700-6500K								
Luminous Flux	6000lm	9600 lm	12000 lm	14400 lm	16000 lm	24000 lm	36000 lm	48000 lm	72000 lm
CRI	>75								
Materials	PC+Aluminum								
Beam Angle	10,30,60, 85*135 degree								
IP Grade	IP65								
Net Weight	3.5kg	4.6kg	8kg		11.3kg	15kg	21kg	28kg	
Power Factor	0.95								
Insulation Class	Class I								
Warranty	5 years								
Certificates	CE, ROHS, ETL								



Architecture, Industry, Factory, Stadium, Garden, Seaport, Billboard.



LED FLOOD LIGHT



FEATURES

Features: Module design and Meanwell drivers for outstanding heat dissipation and easy maintenance.

Lumileds and Samsung LEDs with more than 120lm/w system efficiency.

Model: ZHFL-M-50, ZHFL-M-100, ZHFL-M-150, ZHFL-M-200, ZHFL-M-250, ZHFL-M-300, ZHFL-M-350, ZHFL-M-400, ZHFL-M-500

Rated Power: 50W ,100W, 120W, 150W, 200W, 250w, 300w, 350w, 400w, 500w

Lamp Efficiency: 135lm/w

Replaces: 200w MH to 1500w MH

Beam angle: 60x60°,90x90°,90°,120°,132x78°,144x62°

Warranty: 5 Years

Certificate: ETL,DLC,CE,RoHS

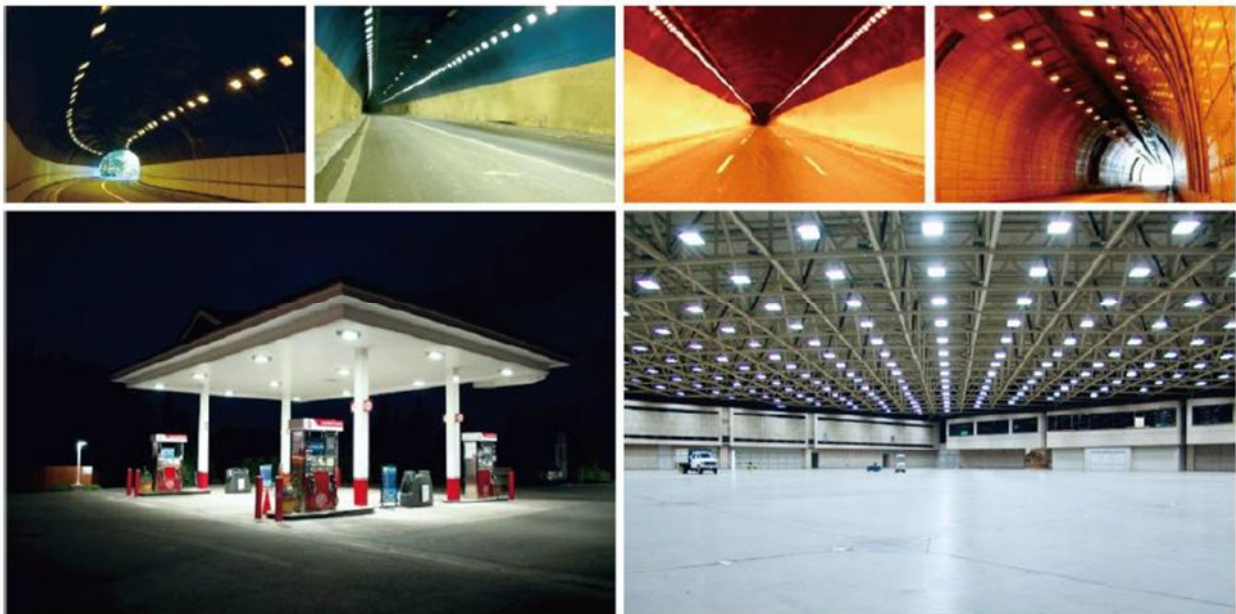
Waterproof: IP65

SPECIFICATIONS:

Model	ZHFL-M-50	ZHFL-M-100	ZHFL-M-150	ZHFL-M-200	ZHFL-M-250	ZHFL-M-300	ZHFL-M-350	ZHFL-M-400	ZHFL-M-500
Size(mm)	160*270*81	160*277*166	241*277*251	245*277*336	270*421*234	270*506*234	270*591*234	270*676*234	
Rated Power	50W	100W	150W	200W	250W	300W	350W	400W	500W
Working Voltage	AC90-295V 50-60Hz								
Power Supply	Meanwell								
LED Chip	Lumileds, Samsung								
Color Temp.	2700-6500K								
Luminous Flux	6250-6800	12500-13500	18750-20250	24000-27000	31250-33750	37500-40500	42000-47250	50000-54000	62500-67500
CRI	>80								
Materials	PC+Aluminum								
Beam Angle	(Philips,Samsung,OSRAM:60°x60°,90°x90°),(Cree:132°x78°,120°),(Bridgelux 45mit:90°,90°x90°)								
IP Grade	IP65								
Net Weight	2.5kg	4.0kg	5.3kg	6.4kg	8.5kg	12.8kg	13.8kg	14.8kg	15kg
Power Factor	0.95								
Insulation Class	Class I								
Warranty	5 years								
Certificates	CE, ROHS, ETL								

TYPICAL APPLICATIONS:

led high bay ,low bay, canopy light, tunnel light, warehouse, factory, workshop, gas station etc



Edae-ACS is present in the main port and energy forums



WEEC 2015 World Energy Engineering Congress
Orlando. USA

2016 Ten-T Days Rotterdam



2016 Helsinki. Finland

2018 IENER
1st Engineering Energy Congress
Madrid. SPAIN





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