

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P130262

Luminaire Tested: **HL612ICAT - HLM6927 - HL6WFL - 71PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130262
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33492)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL612ICAT - HLM6927 - HL6WFL - 71PS
Description: HALO ALLSLOPE 6" 21W, Drop Opal Glass Lens, White Polymer Trim Ring
"Dead Front", Wet Location - Showerlight using 55 Degree Optic at a 6-12
Pitch
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 801.7 lumens
Efficiency: N/A
Efficacy: 42.0 lumens/watt
Spacing Criteria (0/90/45): 1.33 / 1.29 / 1.46
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

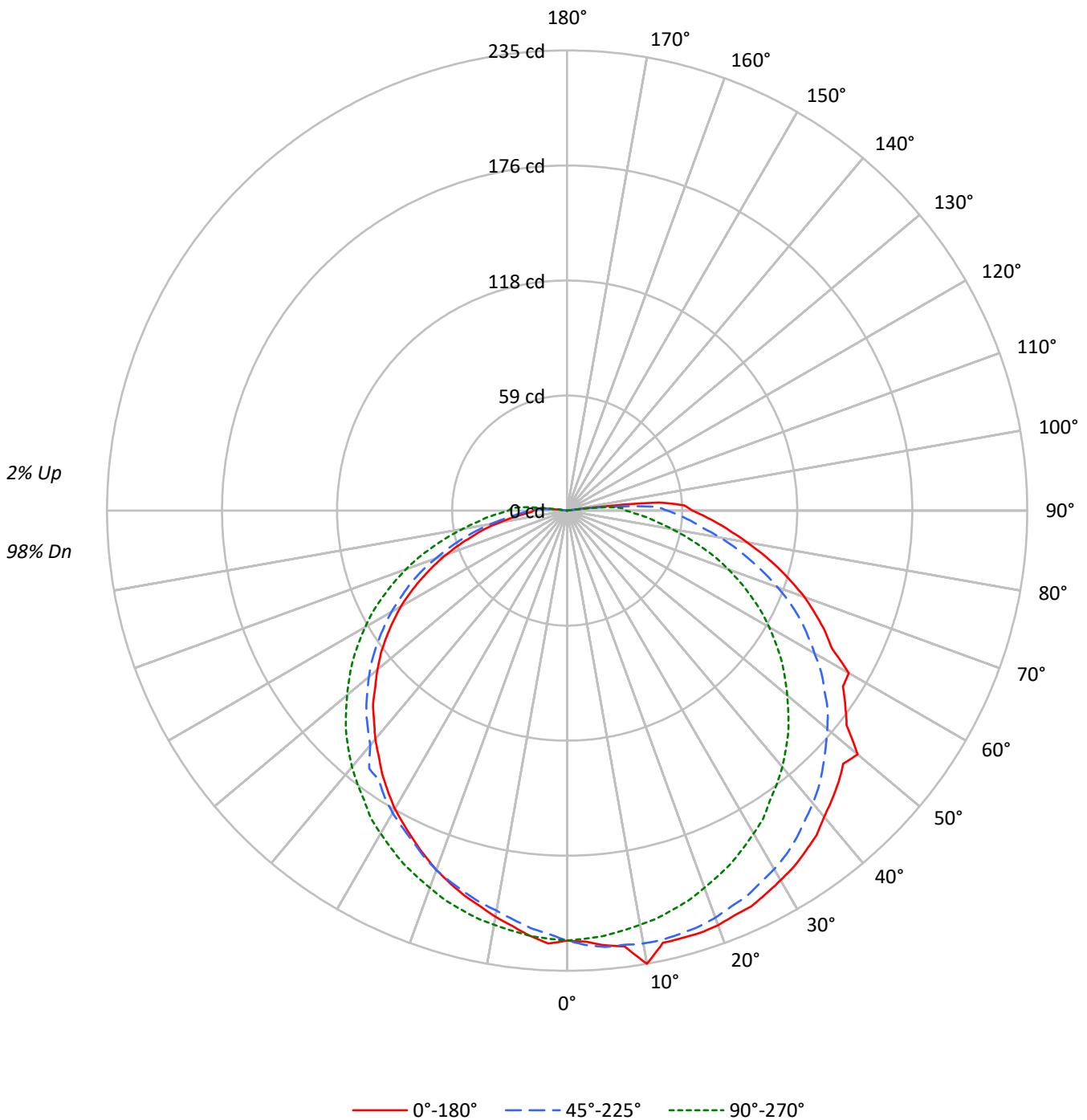
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	106	100	95	90	103	97	92	88	92	89	85	88	85	82	84	81	79	77
2	95	86	78	71	92	83	76	70	79	73	68	76	71	66	72	68	64	62
3	86	74	65	58	83	72	64	57	69	62	56	66	60	55	63	58	53	51
4	78	65	56	48	76	64	55	48	61	53	47	58	51	46	56	50	45	43
5	72	58	48	41	69	57	48	41	54	46	40	52	45	39	50	44	39	36
6	66	52	42	36	64	51	42	35	49	41	35	47	40	34	45	39	34	31
7	61	47	38	31	59	46	37	31	44	36	31	42	35	30	41	35	30	28
8	57	43	34	28	55	42	33	27	40	33	27	39	32	27	37	31	26	24
9	53	39	31	25	52	38	30	25	37	30	24	36	29	24	35	28	24	22
10	50	36	28	22	48	35	27	22	34	27	22	33	26	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	13108	13108	13108
5°	13052	12766	12766
10°	13606	12437	12199
15°	13043	12155	11734
20°	13049	11874	11312
25°	13062	11638	10876
30°	13027	11384	10511
35°	13043	11102	10107
40°	13011	10895	9710
45°	13079	10651	9350
50°	13661	10346	8915
55°	13081	10086	8502
60°	13579	9737	8020
65°	13055	9330	7369
70°	13003	8827	6618
75°	12853	8164	5720
80°	12779	7445	4772
85°	13198	7006	3851



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.8	2.6
10°-20°	60.2	7.5
20°-30°	93.2	11.6
30°-40°	116.6	14.5
40°-50°	127.4	15.9
50°-60°	124.9	15.6
60°-70°	108.5	13.5
70°-80°	80.6	10.1
80°-90°	50.5	6.3
90°-100°	19.0	2.4
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	174.3	21.7
0°-40°	290.9	36.3
0°-60°	543.2	67.8
0°-90°	782.7	97.6
90°-120°	19.0	2.4
90°-150°	19.0	2.4
90°-180°	19.0	2.4
0°-180°	801.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	220	220	220	220	220	
5°	223	224	218	214	218	22
15°	226	224	211	202	203	64
25°	223	217	199	186	186	103
35°	212	204	181	168	164	133
45°	196	185	160	145	140	152
55°	173	160	134	118	113	157
65°	145	131	104	88	82	144
75°	111	96	70	55	49	117
85°	78	64	41	27	23	67
90°	64	51	30	20	17	35
95°	47	23	20	7	11	21
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	219.6	219.6	219.6	219.6	219.6	219.6	219.6	219.6	219.6
2.5°	220.4	222.1	222.1	221.3	218.8	219.6	216.4	217.2	221.3
5°	222.9	223.7	223.7	221.3	218.0	218.0	214.0	214.0	218.0
7.5°	224.5	225.3	223.7	221.3	216.4	215.6	210.7	210.7	214.0
10°	235.0	226.1	224.5	220.4	214.8	213.2	207.5	208.3	210.7
12.5°	226.1	226.1	224.5	219.6	213.2	210.7	205.0	204.2	206.7
15°	226.1	226.1	223.7	218.0	210.7	208.3	201.8	201.0	203.4
17.5°	226.1	226.1	222.9	216.4	208.3	205.0	198.6	197.8	199.4
20°	225.3	225.3	221.3	214.0	205.0	201.8	195.3	193.7	195.3
22.5°	223.7	223.7	218.8	211.5	201.8	197.8	191.3	189.6	190.5
25°	222.9	222.1	217.2	208.3	198.6	194.5	186.4	185.6	185.6
27.5°	220.4	219.6	214.0	205.9	194.5	189.6	182.4	180.7	180.7
30°	218.0	217.2	211.5	201.8	190.5	185.6	178.3	175.9	175.9
32.5°	215.6	214.8	208.3	198.6	186.4	180.7	173.4	171.0	170.2
35°	212.3	211.5	204.2	193.7	180.7	175.1	167.8	166.1	164.5
37.5°	209.1	207.5	199.4	188.8	175.9	170.2	166.1	160.5	158.0
40°	204.2	203.4	195.3	184.0	171.0	167.0	156.4	155.6	152.4
42.5°	200.2	198.6	190.5	179.1	165.3	158.0	150.7	148.3	145.9
45°	196.1	193.7	184.8	173.4	159.7	152.4	145.1	141.8	140.2
47.5°	191.3	192.1	179.1	167.8	153.2	145.9	138.6	135.3	132.9
50°	193.7	184.0	173.4	161.3	146.7	139.4	132.1	128.9	126.4
52.5°	179.9	177.5	167.8	154.8	140.2	132.9	125.6	122.4	119.9
55°	173.4	171.0	160.5	148.3	133.7	125.6	118.3	115.1	112.7
57.5°	167.0	164.5	154.0	141.8	126.4	118.3	111.0	107.8	105.4
60°	166.1	157.2	145.9	134.5	119.1	111.0	103.7	102.9	98.1
62.5°	152.4	149.9	138.6	126.4	111.8	102.9	95.6	92.4	90.0
65°	145.1	142.6	131.3	118.3	103.7	94.8	88.3	84.3	81.9
67.5°	137.0	134.5	123.2	110.2	95.6	86.7	80.2	77.0	73.8
70°	128.9	126.4	114.3	102.1	87.5	78.6	71.3	68.1	65.6
72.5°	119.9	117.5	105.4	93.2	79.4	69.7	63.2	60.0	57.5
75°	111.0	108.6	96.4	85.1	70.5	61.6	55.1	51.9	49.4
77.5°	102.1	99.7	88.3	76.2	62.4	53.5	47.0	43.8	43.0
80°	93.2	90.8	79.4	67.3	54.3	45.4	39.7	36.5	34.8
82.5°	85.1	82.7	70.5	60.0	47.0	38.1	32.4	30.0	28.4
85°	77.8	74.6	64.0	52.7	41.3	31.6	26.7	23.5	22.7
87.5°	70.5	67.3	57.5	46.2	34.8	26.7	21.9	19.5	18.6
90°	64.0	60.8	51.1	40.5	30.0	23.5	19.5	17.8	17.0
92.5°	60.0	55.9	45.4	34.8	28.4	21.9	16.2	15.4	16.2
95°	47.0	34.8	22.7	21.9	20.3	12.2	7.3	8.9	11.3
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)