

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: P130267

Luminaire Tested: **HL612ICAT - HLM6930 - HL6WFL - 73PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130267
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33493)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL612ICAT - HLM6930 - HL6WFL - 73PS
Description: HALO ALLSLOPE 6" 21W, Fresnel 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 / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1219.4 lumens
Efficiency: N/A
Efficacy: 63.8 lumens/watt
Spacing Criteria (0/90/45): 1.45 / 0.91 / 1.12
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

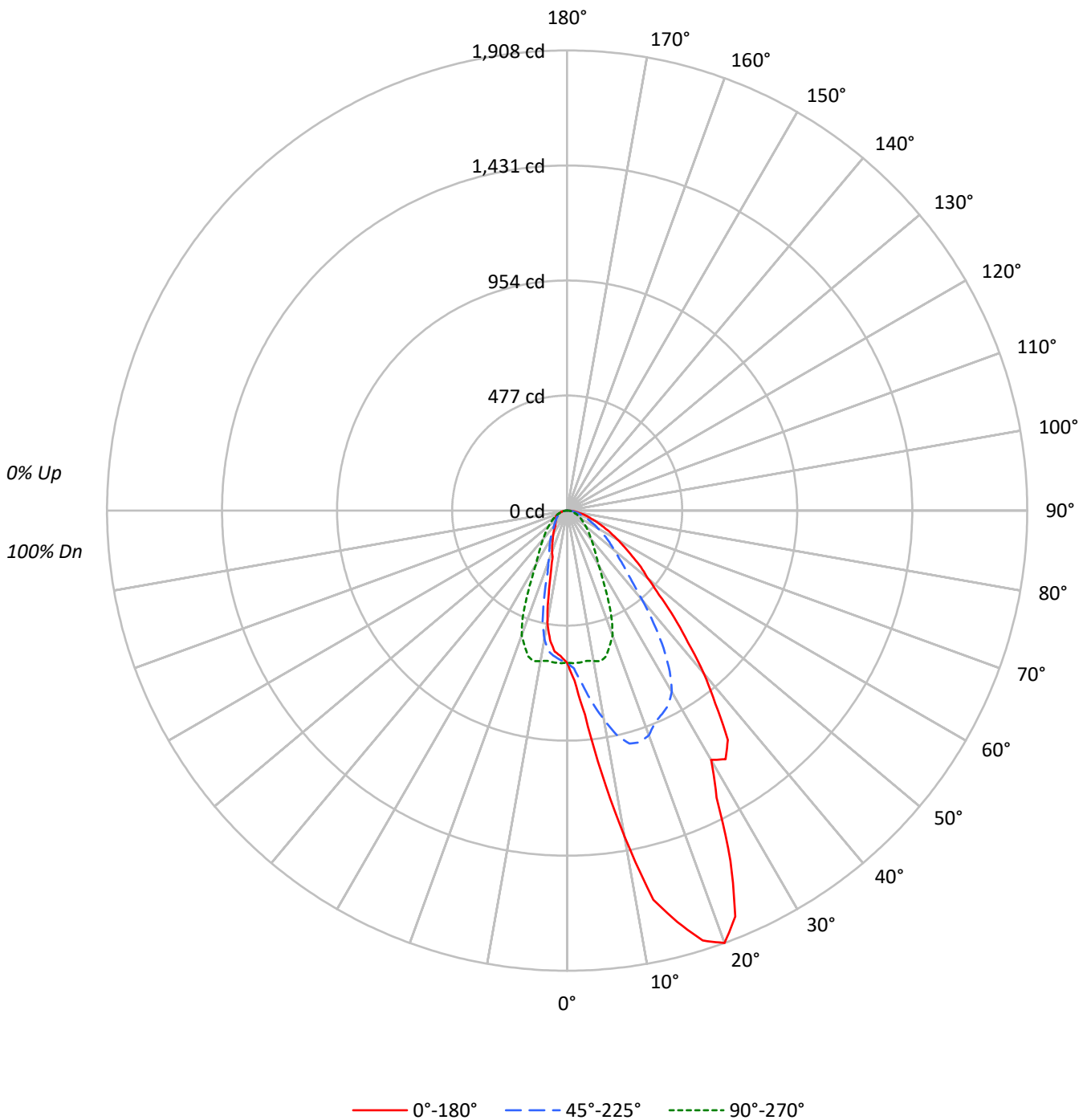
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68				68
4	89	79	71	66	87	78	71	65	75	69	64	73	68	64	71	66	63	61				61
5	83	72	64	59	81	71	64	58	69	63	58	67	61	57	65	60	57	55				55
6	77	66	58	53	76	65	58	53	63	57	52	62	56	52	60	55	51	49				49
7	73	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45				45
8	68	56	49	44	67	56	49	44	54	48	43	53	47	43	52	47	43	41				41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	43	40	38				38
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35				35

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	37647	37647	37647
5°	49739	37032	34350
10°	79460	36661	27288
15°	101861	36090	14716
20°	110517	31914	10605
25°	93884	23200	8444
30°	71320	15501	6890
35°	71348	12189	5677
40°	56113	9882	4912
45°	41837	8423	4522
50°	30785	6996	4302
55°	24744	6013	4285
60°	19817	5339	4300
65°	15637	4499	4346
70°	12146	3763	3672
75°	9426	3242	3242
80°	6390	2550	2783
85°	4597	1578	1866



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.2	5.4
10°-20°	210.9	17.3
20°-30°	271.1	22.2
30°-40°	247.9	20.3
40°-50°	172.4	14.1
50°-60°	117.7	9.6
60°-70°	77.2	6.3
70°-80°	41.8	3.4
80°-90°	14.3	1.2
90°-100°	0.0	0.0
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°	548.1	45.0
0°-40°	796.0	65.3
0°-60°	1086.1	89.1
0°-90°	1219.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1219.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	631	631	631	631	631	
5°	849	724	632	607	587	98
15°	1766	1000	626	364	255	498
25°	1602	931	396	174	144	720
35°	1161	698	198	107	92	691
45°	627	338	126	71	68	488
55°	328	200	80	53	57	297
65°	174	108	50	41	48	175
75°	81	52	28	25	28	86
85°	27	16	9	9	11	28
90°	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°	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7
2.5°	705.3	673.9	655.2	646.8	633.2	617.1	620.5	603.5	604.4
5°	849.4	790.9	723.9	666.3	632.4	604.4	606.9	586.6	586.6
7.5°	1097.7	974.0	803.6	694.2	628.1	596.8	589.1	547.6	541.7
10°	1372.4	1182.5	880.7	711.2	633.2	585.7	540.8	484.0	471.3
12.5°	1652.9	1400.3	955.3	723.9	640.0	551.0	470.5	381.4	353.5
15°	1765.7	1550.4	1000.2	735.8	625.6	503.5	364.5	266.2	255.1
17.5°	1869.1	1608.0	1007.0	750.2	586.6	423.8	267.0	220.4	200.0
20°	1908.1	1574.1	990.9	747.6	551.0	324.7	224.6	192.4	183.1
22.5°	1821.6	1463.1	951.1	721.4	481.5	256.8	195.0	168.7	162.8
25°	1602.1	1303.7	930.7	683.2	395.9	220.4	173.8	149.2	144.1
27.5°	1341.8	1178.2	908.7	619.6	317.0	195.0	155.1	134.8	128.0
30°	1193.5	1117.2	868.0	536.6	259.4	172.1	137.3	118.7	115.3
32.5°	1222.3	1108.7	792.6	451.0	225.5	152.6	122.9	105.1	103.4
35°	1161.3	1013.8	697.6	356.0	198.4	133.9	106.8	93.2	92.4
37.5°	1008.7	875.6	589.1	293.3	175.5	118.7	94.9	83.9	78.8
40°	880.7	749.3	483.2	253.5	155.1	106.0	85.6	77.1	77.1
42.5°	742.6	633.2	395.9	224.6	139.9	95.8	78.8	72.1	72.1
45°	627.3	521.3	338.2	200.0	126.3	86.5	71.2	66.1	67.8
47.5°	517.1	437.4	291.6	179.7	112.7	78.0	66.1	61.9	63.6
50°	436.5	374.7	256.0	158.5	99.2	70.4	61.0	59.3	61.0
52.5°	385.7	326.3	225.5	139.0	89.0	64.4	56.8	57.6	59.3
55°	328.0	283.1	200.0	122.1	79.7	59.3	53.4	54.3	56.8
57.5°	280.6	245.0	171.2	107.7	71.2	54.3	50.0	52.6	55.1
60°	242.4	212.8	148.3	94.9	65.3	49.2	46.6	50.9	52.6
62.5°	207.7	183.1	128.0	81.4	56.8	44.9	44.9	48.3	51.7
65°	173.8	153.4	107.7	69.5	50.0	40.7	40.7	45.8	48.3
67.5°	144.9	128.8	90.7	61.0	44.1	36.4	36.4	39.8	44.1
70°	120.4	106.0	75.4	50.9	37.3	32.2	32.2	33.9	36.4
72.5°	97.5	85.6	63.6	42.4	32.2	27.1	28.8	30.5	31.4
75°	81.4	70.4	51.7	34.8	28.0	23.7	25.4	26.3	28.0
77.5°	63.6	55.1	40.7	28.8	23.7	20.3	21.2	22.9	23.7
80°	46.6	40.7	30.5	22.0	18.6	17.0	17.8	20.3	20.3
82.5°	35.6	32.2	22.0	17.0	14.4	12.7	13.6	14.4	15.3
85°	27.1	21.2	16.1	11.0	9.3	8.5	9.3	10.2	11.0
87.5°	16.1	13.6	10.2	6.8	5.9	5.1	5.1	5.9	5.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)