

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: P130269

Luminaire Tested: **HL612ICAT - HLM6940 - HL6WFL - 73PS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P130269  
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 - HLM6940 - 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 / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

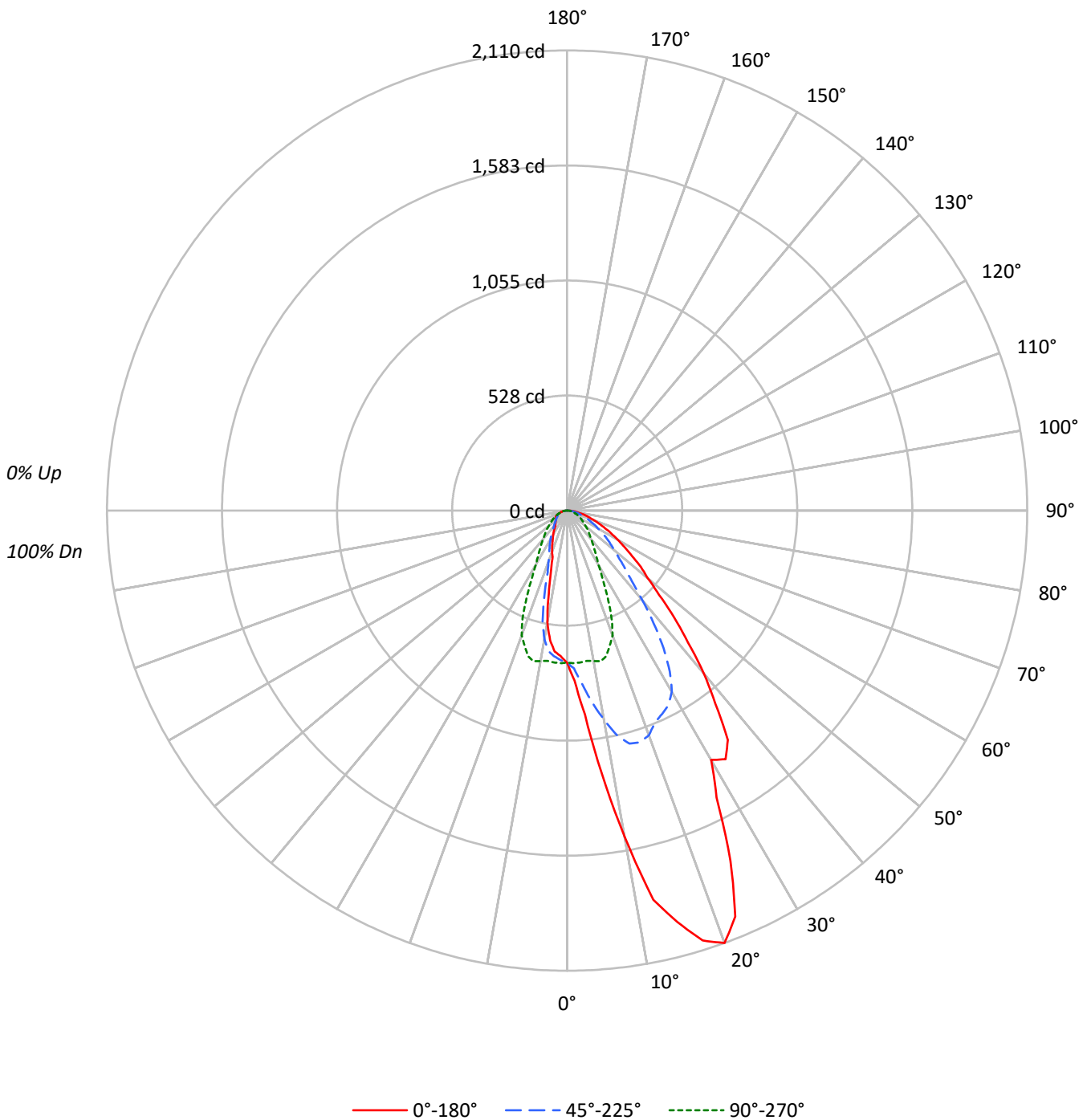
Lumens per Lamp: N/A  
Luminaire Lumens: 1348.5 lumens  
Efficiency: N/A  
Efficacy: 70.6 lumens/watt  
Spacing Criteria (0/90/45): 1.45 / 0.91 / 1.12  
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
Input Voltage (V): NR  
Input Current (Ain): 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°	41628	41628	41628
5°	55003	40949	37986
10°	87873	40546	30177
15°	112643	39909	16280
20°	122217	35291	11729
25°	103822	25655	9341
30°	78874	17138	7619
35°	78905	13479	6279
40°	62058	10927	5435
45°	46265	9317	5002
50°	34051	7737	4761
55°	27369	6646	4738
60°	21918	5903	4750
65°	17292	4975	4804
70°	13427	4156	4065
75°	10422	3578	3578
80°	7075	2825	3085
85°	5089	1747	2070



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.2	5.4
10°-20°	233.2	17.3
20°-30°	299.8	22.2
30°-40°	274.1	20.3
40°-50°	190.6	14.1
50°-60°	130.1	9.6
60°-70°	85.4	6.3
70°-80°	46.3	3.4
80°-90°	15.8	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°	606.2	45.0
0°-40°	880.3	65.3
0°-60°	1201.1	89.1
0°-90°	1348.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1348.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	697	697	697	697	697	
5°	939	801	699	671	649	109
15°	1953	1106	692	403	282	551
25°	1772	1029	438	192	159	796
35°	1284	772	219	118	102	764
45°	694	374	140	79	75	540
55°	363	221	88	59	63	329
65°	192	119	55	45	53	193
75°	90	57	31	28	31	95
85°	30	18	10	10	12	31
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°	697.4	697.4	697.4	697.4	697.4	697.4	697.4	697.4	697.4
2.5°	779.9	745.2	724.6	715.2	700.3	682.4	686.2	667.4	668.4
5°	939.3	874.6	800.6	736.8	699.3	668.4	671.2	648.7	648.7
7.5°	1214.0	1077.1	888.7	767.7	694.6	659.9	651.5	605.6	599.0
10°	1517.7	1307.7	974.0	786.5	700.3	647.8	598.1	535.3	521.2
12.5°	1828.0	1548.6	1056.5	800.6	707.8	609.3	520.3	421.8	390.9
15°	1952.6	1714.5	1106.2	813.7	691.8	556.8	403.1	294.3	282.2
17.5°	2067.0	1778.3	1113.7	829.6	648.7	468.7	295.3	243.7	221.2
20°	2110.1	1740.8	1095.8	826.8	609.3	359.0	248.4	212.8	202.5
22.5°	2014.5	1618.0	1051.8	797.7	532.5	284.0	215.6	186.5	180.0
25°	1771.7	1441.7	1029.3	755.6	437.8	243.7	192.2	165.0	159.4
27.5°	1483.9	1303.0	1004.9	685.3	350.6	215.6	171.5	149.0	141.6
30°	1319.9	1235.5	959.9	593.4	286.8	190.3	151.9	131.2	127.5
32.5°	1351.8	1226.1	876.5	498.7	249.4	168.7	135.9	116.2	114.4
35°	1284.3	1121.2	771.5	393.7	219.4	148.1	118.1	103.1	102.2
37.5°	1115.5	968.4	651.5	324.3	194.0	131.2	105.0	92.8	87.2
40°	974.0	828.7	534.3	280.3	171.5	117.2	94.7	85.3	85.3
42.5°	821.2	700.3	437.8	248.4	154.7	105.9	87.2	79.7	79.7
45°	693.7	576.5	374.0	221.2	139.7	95.6	78.7	73.1	75.0
47.5°	571.8	483.7	322.5	198.7	124.7	86.2	73.1	68.4	70.3
50°	482.8	414.3	283.1	175.3	109.7	77.8	67.5	65.6	67.5
52.5°	426.5	360.9	249.4	153.7	98.4	71.2	62.8	63.7	65.6
55°	362.8	313.1	221.2	135.0	88.1	65.6	59.1	60.0	62.8
57.5°	310.3	270.9	189.4	119.1	78.7	60.0	55.3	58.1	60.9
60°	268.1	235.3	164.0	105.0	72.2	54.4	51.6	56.2	58.1
62.5°	229.7	202.5	141.6	90.0	62.8	49.7	49.7	53.4	57.2
65°	192.2	169.7	119.1	76.9	55.3	45.0	45.0	50.6	53.4
67.5°	160.3	142.5	100.3	67.5	48.7	40.3	40.3	44.1	48.7
70°	133.1	117.2	83.4	56.2	41.2	35.6	35.6	37.5	40.3
72.5°	107.8	94.7	70.3	46.9	35.6	30.0	31.9	33.7	34.7
75°	90.0	77.8	57.2	38.4	30.9	26.2	28.1	29.1	30.9
77.5°	70.3	60.9	45.0	31.9	26.2	22.5	23.4	25.3	26.2
80°	51.6	45.0	33.7	24.4	20.6	18.7	19.7	22.5	22.5
82.5°	39.4	35.6	24.4	18.7	15.9	14.1	15.0	15.9	16.9
85°	30.0	23.4	17.8	12.2	10.3	9.4	10.3	11.2	12.2
87.5°	17.8	15.0	11.2	7.5	6.6	5.6	5.6	6.6	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)