

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: P130102

Luminaire Tested: **HL618TAT - HLM6940 - HL6WFL - 455SC**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P130102  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33486)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HL618TAT - HLM6940 - HL6WFL - 455SC  
Description: HALO ALLSLOPE 6" 30W, Specular Clear Reflector, White Metal Trim  
Ring 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: 2373.8 lumens  
Efficiency: N/A  
Efficacy: 86.0 lumens/watt  
Spacing Criteria (0/90/45): 1.47 / 0.84 / 1.17  
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')  
CIE Type: Direct

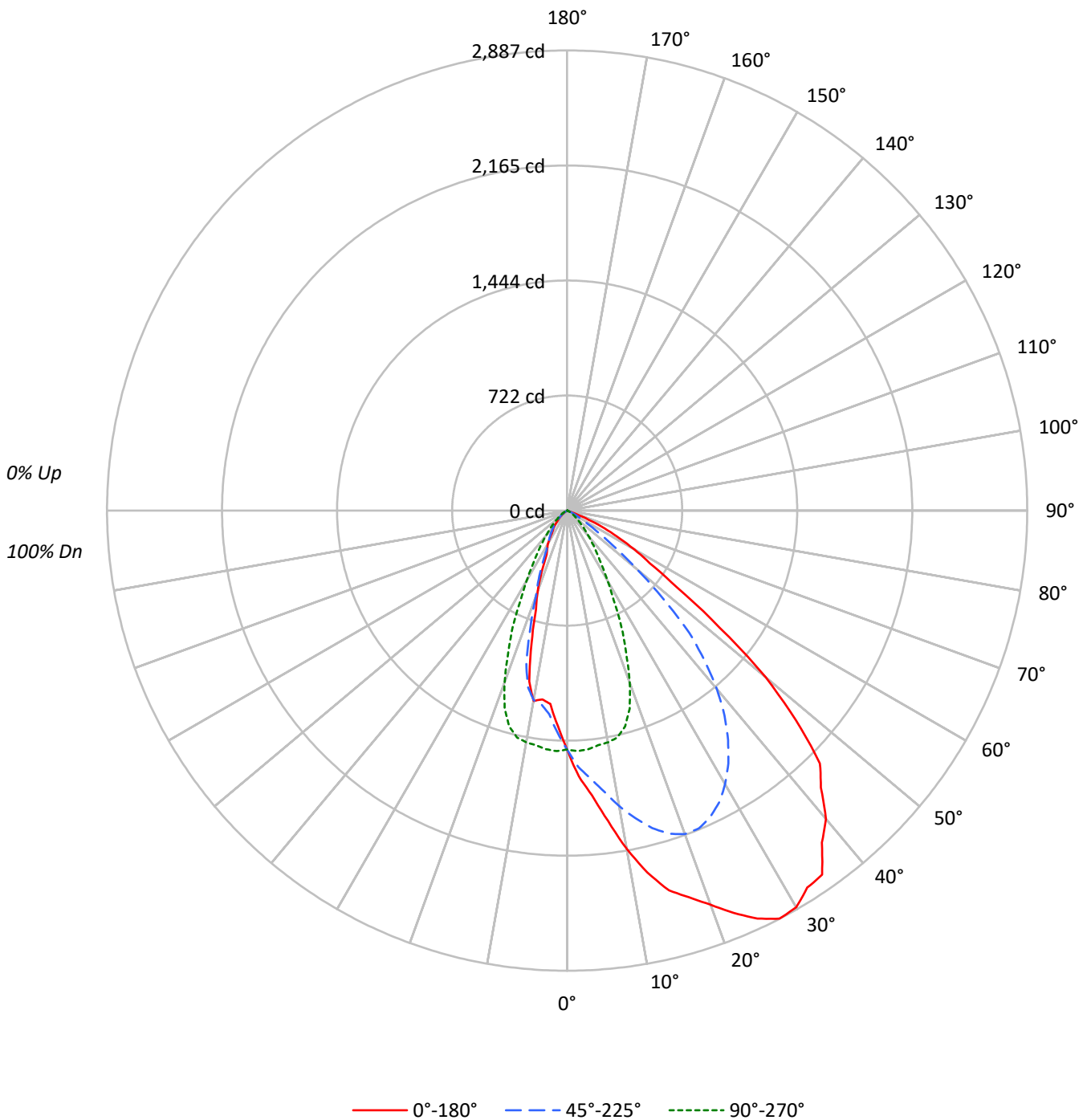
Input Watts (W): 27.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82					82			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	61	60					60			
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54					54			
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49					49			
8	71	59	52	47	69	59	52	47	58	51	47	57	51	47	55	50	47	45					45			
9	67	55	48	44	65	55	48	43	54	48	43	53	47	43	52	47	43	41					41			
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38					38			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	89494	89494	89494
5°	104947	88012	71282
10°	124841	85482	70202
15°	142330	80863	49716
20°	152393	66527	31277
25°	165482	47390	17727
30°	171772	30249	14551
35°	171350	19771	9701
40°	160956	13208	7525
45°	149594	8844	4982
50°	114587	5607	2722
55°	63286	3636	543
60°	39610	2166	0
65°	21359	864	0
70°	2915	242	0
75°	278	139	0
80°	0	329	0
85°	0	407	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.4	6.1
10°-20°	421.1	17.7
20°-30°	552.7	23.3
30°-40°	576.5	24.3
40°-50°	452.1	19.0
50°-60°	182.3	7.7
60°-70°	41.8	1.8
70°-80°	2.2	0.1
80°-90°	0.9	0.0
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°	1118.1	47.1
0°-40°	1694.6	71.4
0°-60°	2329.0	98.1
0°-90°	2373.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2373.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1499	1499	1499	1499	1499	
5°	1792	1687	1503	1282	1217	182
15°	2467	2062	1402	990	862	696
25°	2824	2122	809	369	302	1299
35°	2789	1760	322	181	158	1711
45°	2243	1085	133	86	75	1660
55°	839	225	48	25	7	824
65°	237	35	10	1	0	237
75°	2	2	1	1	0	6
85°	0	1	2	1	0	0
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°	1499.3	1499.3	1499.3	1499.3	1499.3	1499.3	1499.3	1499.3	1499.3
2.5°	1668.1	1613.8	1610.2	1543.9	1510.2	1451.1	1394.5	1365.6	1351.1
5°	1792.2	1719.9	1687.4	1592.2	1503.0	1382.4	1282.4	1235.4	1217.3
7.5°	1964.6	1867.0	1777.8	1621.1	1484.9	1323.4	1228.2	1196.8	1194.4
10°	2156.2	2026.0	1882.6	1654.8	1476.4	1287.2	1207.7	1207.7	1212.5
12.5°	2326.2	2179.1	1976.6	1693.4	1457.2	1236.6	1134.2	1117.3	1098.0
15°	2467.2	2310.5	2062.2	1705.4	1401.7	1141.4	989.5	895.5	861.8
17.5°	2543.1	2414.1	2126.1	1689.8	1302.9	984.7	764.1	666.5	652.0
20°	2631.1	2472.0	2159.8	1631.9	1148.6	772.6	571.3	548.4	540.0
22.5°	2732.3	2511.8	2158.6	1534.3	965.4	584.6	465.2	432.7	417.0
25°	2823.9	2539.5	2122.5	1413.8	808.7	449.6	368.8	309.8	302.5
27.5°	2886.6	2552.7	2064.6	1271.6	630.4	364.0	282.0	257.9	268.8
30°	2874.5	2546.7	1982.7	1128.1	506.2	294.1	230.2	237.4	243.5
32.5°	2804.6	2531.0	1881.4	984.7	398.9	242.3	207.3	202.5	194.0
35°	2789.0	2486.5	1759.7	840.1	321.8	202.5	180.8	162.7	157.9
37.5°	2625.1	2385.2	1622.3	701.5	261.5	172.4	154.3	142.2	141.0
40°	2526.2	2244.2	1459.6	570.1	207.3	148.2	131.4	120.5	118.1
42.5°	2356.3	2061.0	1275.2	432.7	167.5	125.3	109.7	94.0	91.6
45°	2243.0	1850.1	1084.7	300.1	132.6	101.2	85.6	77.1	74.7
47.5°	1946.5	1604.2	807.5	208.5	102.4	82.0	67.5	59.1	57.9
50°	1624.7	1293.2	568.9	138.6	79.5	63.9	53.0	43.4	38.6
52.5°	1208.9	934.1	370.0	91.6	62.7	49.4	38.6	26.5	22.9
55°	838.9	635.2	225.4	68.7	48.2	37.4	25.3	13.3	7.2
57.5°	614.7	444.7	138.6	51.8	36.2	26.5	14.5	2.4	0.0
60°	484.5	324.2	86.8	38.6	26.5	16.9	4.8	0.0	0.0
62.5°	349.5	219.4	55.4	26.5	16.9	9.6	1.2	0.0	0.0
65°	237.4	122.9	35.0	18.1	9.6	3.6	1.2	0.0	0.0
67.5°	124.1	57.9	18.1	9.6	4.8	2.4	1.2	0.0	0.0
70°	28.9	18.1	8.4	4.8	2.4	1.2	1.2	0.0	0.0
72.5°	7.2	6.0	3.6	2.4	1.2	1.2	1.2	0.0	0.0
75°	2.4	2.4	2.4	1.2	1.2	1.2	1.2	0.0	0.0
77.5°	0.0	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0
80°	0.0	0.0	1.2	1.2	2.4	1.2	1.2	0.0	0.0
82.5°	0.0	0.0	1.2	1.2	2.4	1.2	1.2	0.0	0.0
85°	0.0	0.0	1.2	1.2	2.4	1.2	1.2	0.0	0.0
87.5°	0.0	0.0	1.2	1.2	2.4	1.2	1.2	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)