

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: P130106

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P130106  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33485)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HL618TAT - HLM6940 - HL6WFL - 455H  
Description: HALO ALLSLOPE 6" 30W, Semi-Specular Haze 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: 2363.2 lumens  
Efficiency: N/A  
Efficacy: 85.6 lumens/watt  
Spacing Criteria (0/90/45): 1.45 / 0.76 / 1.17  
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')  
CIE Type: Direct

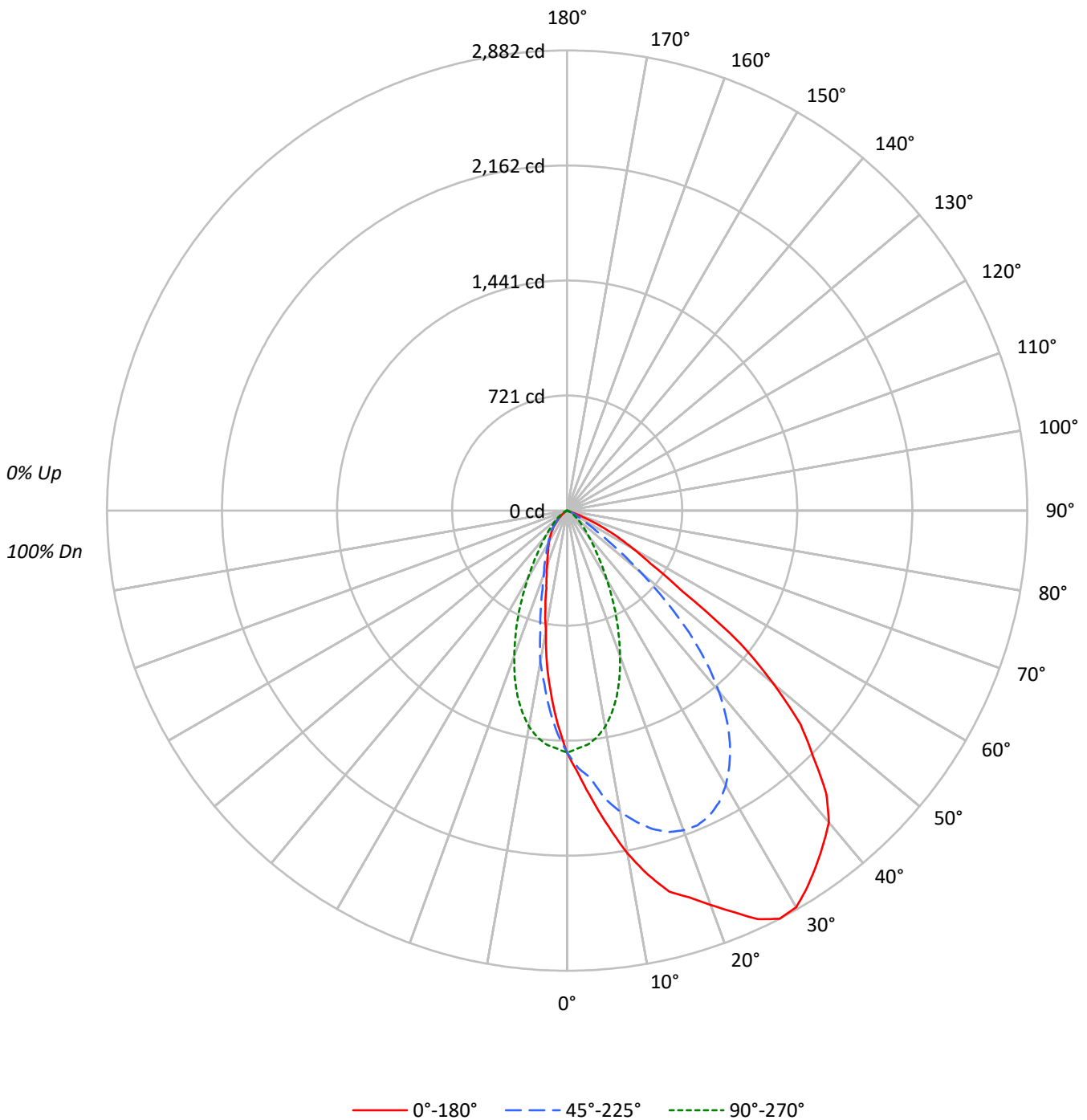
Input Watts (W): 27.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	54	49	46	44
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40
10	62	50	44	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37

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

	0°	90°	180°
0°	90473	90473	90473
5°	106621	86196	67476
10°	126254	79524	44478
15°	142555	69279	29029
20°	152208	56037	21262
25°	165464	42380	16525
30°	171414	29419	13583
35°	166976	19789	10752
40°	162478	13552	8130
45°	145352	9244	5596
50°	118903	6171	3343
55°	66666	4127	1743
60°	38956	2485	793
65°	21548	1206	324
70°	4903	494	0
75°	417	278	0
80°	0	329	0
85°	0	407	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.5	5.9
10°-20°	380.7	16.1
20°-30°	539.5	22.8
30°-40°	587.0	24.8
40°-50°	467.4	19.8
50°-60°	197.4	8.4
60°-70°	46.0	1.9
70°-80°	3.5	0.1
80°-90°	1.3	0.1
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°	1060.7	44.9
0°-40°	1647.7	69.7
0°-60°	2312.4	97.9
0°-90°	2363.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2363.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1516	1516	1516	1516	1516	
5°	1821	1680	1472	1253	1152	185
15°	2471	2064	1201	634	503	697
25°	2824	2109	723	314	282	1297
35°	2718	1778	322	186	175	1702
45°	2179	1079	139	97	84	1672
55°	884	227	55	33	23	876
65°	240	38	13	6	4	239
75°	4	2	2	1	0	11
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°	1515.7	1515.7	1515.7	1515.7	1515.7	1515.7	1515.7	1515.7	1515.7
2.5°	1651.8	1664.0	1614.2	1564.3	1491.4	1462.2	1397.8	1372.3	1339.5
5°	1820.8	1815.9	1679.8	1609.3	1472.0	1374.7	1253.2	1197.3	1152.3
7.5°	1998.3	1982.5	1820.8	1637.3	1431.8	1266.5	1095.2	1011.3	970.0
10°	2180.6	2139.3	1914.4	1651.8	1373.5	1137.7	963.9	841.1	768.2
12.5°	2334.9	2286.3	1995.8	1651.8	1294.5	1004.0	780.3	667.3	630.8
15°	2471.1	2409.1	2063.9	1628.8	1200.9	869.1	634.5	531.2	503.2
17.5°	2539.1	2508.8	2111.3	1592.3	1091.5	731.7	512.9	446.1	426.6
20°	2627.9	2557.4	2130.7	1535.2	967.5	599.2	424.2	384.1	367.1
22.5°	2720.3	2596.3	2133.2	1461.0	843.5	489.8	373.2	334.3	322.1
25°	2823.6	2625.4	2108.9	1368.6	723.2	401.1	313.6	291.7	282.0
27.5°	2881.9	2642.5	2060.2	1260.5	602.9	340.3	272.3	265.0	252.8
30°	2868.5	2638.8	1987.3	1131.6	492.3	286.9	237.0	232.2	227.3
32.5°	2798.0	2621.8	1892.5	997.9	397.5	245.5	210.3	205.4	200.6
35°	2717.8	2579.3	1778.3	853.3	322.1	210.3	186.0	179.9	175.0
37.5°	2635.2	2478.4	1638.5	714.7	261.3	179.9	161.7	154.4	149.5
40°	2550.1	2333.7	1479.2	583.4	212.7	156.8	139.8	132.5	127.6
42.5°	2403.0	2147.8	1293.3	444.9	171.4	133.7	117.9	113.0	105.7
45°	2179.4	1899.8	1079.4	318.5	138.6	111.8	97.2	87.5	83.9
47.5°	1982.5	1694.4	833.8	216.4	110.6	91.2	76.6	69.3	64.4
50°	1685.9	1394.2	596.8	147.1	87.5	71.7	59.6	52.3	47.4
52.5°	1371.1	1014.9	387.7	98.5	70.5	57.1	45.0	37.7	34.0
55°	883.7	680.7	227.3	74.1	54.7	43.8	32.8	24.3	23.1
57.5°	622.3	469.2	139.8	57.1	42.5	31.6	23.1	17.0	14.6
60°	476.5	334.3	91.2	43.8	30.4	21.9	14.6	10.9	9.7
62.5°	352.5	227.3	60.8	31.6	20.7	14.6	9.7	7.3	6.1
65°	239.5	127.6	37.7	20.7	13.4	8.5	6.1	3.6	3.6
67.5°	121.5	60.8	21.9	13.4	8.5	4.9	3.6	2.4	1.2
70°	48.6	21.9	10.9	7.3	4.9	3.6	2.4	1.2	0.0
72.5°	12.2	8.5	6.1	3.6	3.6	2.4	1.2	1.2	0.0
75°	3.6	3.6	2.4	2.4	2.4	2.4	1.2	1.2	0.0
77.5°	1.2	1.2	1.2	2.4	2.4	2.4	1.2	1.2	0.0
80°	0.0	1.2	1.2	2.4	2.4	2.4	1.2	0.0	0.0
82.5°	0.0	1.2	1.2	2.4	2.4	2.4	1.2	0.0	0.0
85°	0.0	1.2	1.2	2.4	2.4	2.4	1.2	0.0	0.0
87.5°	0.0	1.2	1.2	2.4	2.4	2.4	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)