

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: P130118

Luminaire Tested: **HL618TAT - HLM6940 - HL6WFL - 456W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P130118  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33489)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HL618TAT - HLM6940 - HL6WFL - 456W  
Description: HALO ALLSLOPE 6" 30W, White Coilex Baffle, 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: 2369.1 lumens  
Efficiency: N/A  
Efficacy: 85.8 lumens/watt  
Spacing Criteria (0/90/45): 1.45 / 0.79 / 1.17  
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')  
CIE Type: Direct

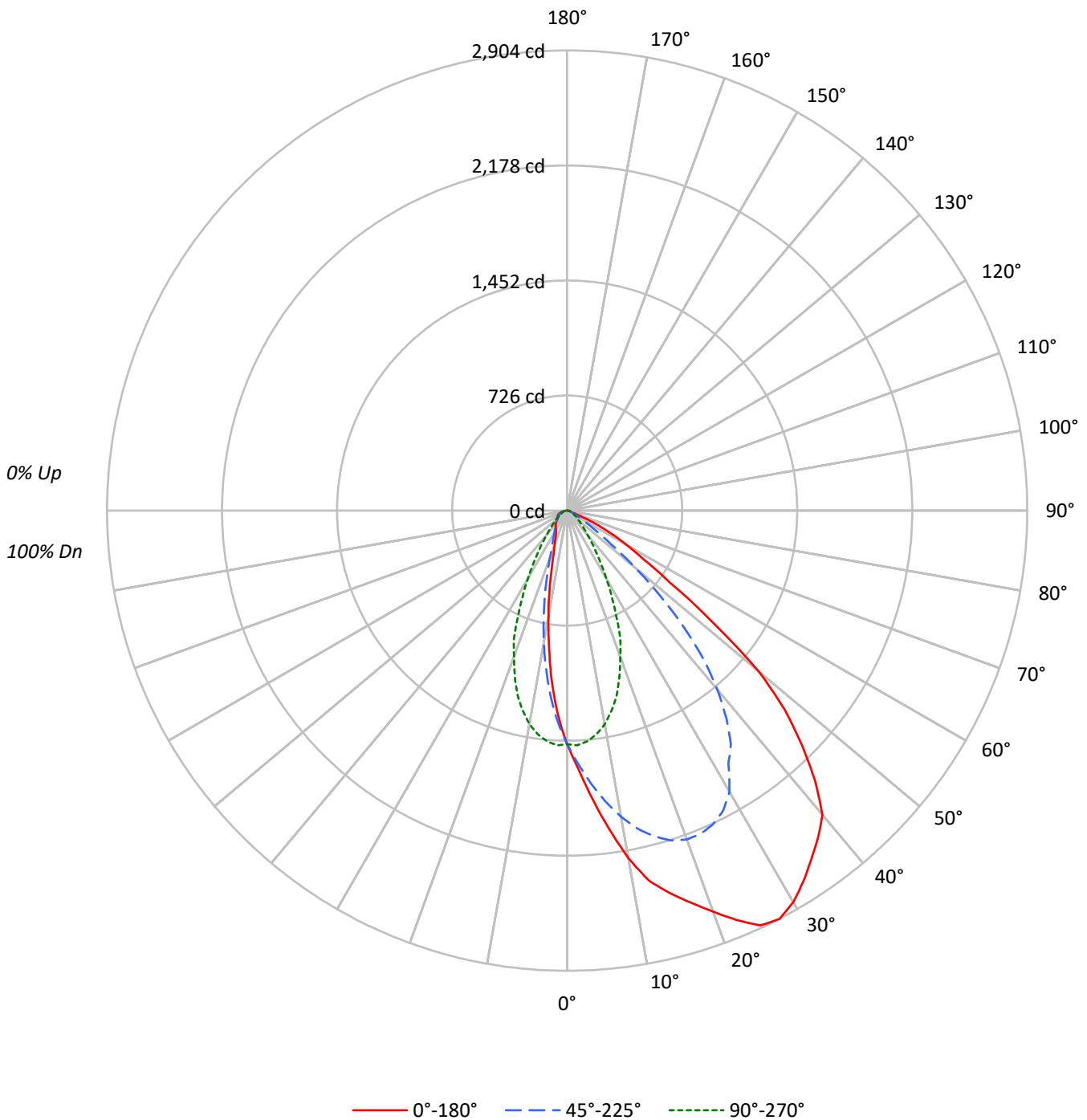
Input Watts (W): 27.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	71					71			
4	91	81	74	69	89	80	73	68	78	72	67	75	70	67	73	69	66	64					64			
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	57					57			
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52					52			
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47					47			
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43					43			
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39					39			
10	61	50	43	38	60	49	43	38	48	42	38	47	42	38	47	41	38	36					36			

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

	0°	90°	180°
0°	87972	87972	87972
5°	106920	85582	64097
10°	128964	79182	39342
15°	144107	69631	21524
20°	155990	56814	13379
25°	169261	42860	9775
30°	170535	29532	8414
35°	165010	19353	7741
40°	159707	12749	7162
45°	139823	8984	6263
50°	111350	6707	5663
55°	59650	5409	5122
60°	35351	4243	5657
65°	17670	3446	5560
70°	3611	3117	5114
75°	1436	2860	4435
80°	1179	2372	3387
85°	831	1459	1883



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.5	5.8
10°-20°	372.7	15.7
20°-30°	529.5	22.4
30°-40°	573.7	24.2
40°-50°	451.4	19.1
50°-60°	199.0	8.4
60°-70°	69.4	2.9
70°-80°	26.7	1.1
80°-90°	9.2	0.4
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°	1039.8	43.9
0°-40°	1613.4	68.1
0°-60°	2263.8	95.6
0°-90°	2369.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2369.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1474	1474	1474	1474	1474	
5°	1826	1728	1462	1184	1095	186
15°	2498	2129	1207	539	373	711
25°	2888	2183	731	212	167	1317
35°	2686	1801	315	137	126	1683
45°	2096	1045	135	96	94	1601
55°	791	220	72	67	68	780
65°	196	51	38	53	62	207
75°	12	15	25	35	38	16
85°	5	6	9	11	11	5
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°	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8	1473.8
2.5°	1630.7	1618.4	1598.6	1535.6	1482.5	1408.4	1336.7	1326.8	1297.2
5°	1825.9	1798.7	1728.3	1592.4	1461.5	1314.5	1183.5	1125.4	1094.6
7.5°	2024.8	1981.6	1850.6	1632.0	1423.2	1202.0	1013.0	931.5	869.7
10°	2227.4	2155.8	1961.8	1655.4	1367.6	1074.8	845.0	735.1	679.5
12.5°	2393.0	2311.4	2056.9	1660.4	1293.5	935.2	681.9	559.6	511.5
15°	2498.0	2439.9	2128.6	1649.3	1207.0	796.8	538.6	413.9	373.1
17.5°	2594.3	2520.2	2182.9	1618.4	1098.3	663.4	407.7	306.4	276.7
20°	2693.2	2574.6	2208.9	1569.0	980.9	532.5	311.3	248.3	231.0
22.5°	2796.9	2615.3	2206.4	1503.5	877.1	427.4	254.5	208.8	192.7
25°	2888.4	2643.7	2182.9	1413.3	731.4	336.0	212.5	179.1	166.8
27.5°	2904.4	2647.5	2133.5	1302.1	606.6	274.3	184.1	158.1	150.7
30°	2853.8	2632.6	2049.5	1176.1	494.2	229.8	160.6	147.0	140.8
32.5°	2774.7	2607.9	1893.9	1037.7	395.3	197.7	147.0	138.4	133.4
35°	2685.8	2541.2	1801.2	889.5	315.0	170.5	137.1	131.0	126.0
37.5°	2601.7	2417.7	1649.3	743.7	255.7	148.2	127.2	123.5	119.8
40°	2506.6	2260.8	1475.1	600.4	200.1	133.4	117.4	114.9	112.4
42.5°	2316.4	2056.9	1277.4	449.7	165.5	118.6	107.5	105.0	102.5
45°	2096.5	1827.2	1045.1	322.4	134.7	105.0	96.4	95.1	93.9
47.5°	1863.0	1573.9	794.4	218.7	110.0	93.9	86.5	86.5	85.2
50°	1578.8	1267.5	555.9	145.8	95.1	82.8	79.1	77.8	80.3
52.5°	1155.1	926.5	353.3	107.5	81.5	74.1	71.7	74.1	75.4
55°	790.7	614.0	219.9	88.9	71.7	65.5	66.7	70.4	67.9
57.5°	569.5	422.5	145.8	72.9	61.8	58.1	61.8	67.9	70.4
60°	432.4	305.1	98.8	60.5	51.9	53.1	58.1	66.7	69.2
62.5°	312.6	203.8	70.4	48.2	44.5	48.2	55.6	64.2	65.5
65°	196.4	113.7	50.7	38.3	38.3	44.5	53.1	60.5	61.8
67.5°	100.1	59.3	34.6	30.9	34.6	42.0	49.4	55.6	56.8
70°	35.8	29.6	24.7	25.9	30.9	38.3	44.5	49.4	50.7
72.5°	17.3	18.5	18.5	22.2	28.4	34.6	39.5	43.2	44.5
75°	12.4	13.6	14.8	18.5	24.7	29.6	34.6	37.1	38.3
77.5°	9.9	11.1	12.4	16.1	21.0	25.9	28.4	30.9	32.1
80°	8.6	8.6	11.1	13.6	17.3	19.8	22.2	24.7	24.7
82.5°	6.2	7.4	8.6	11.1	12.4	14.8	16.1	18.5	18.5
85°	4.9	4.9	6.2	7.4	8.6	9.9	11.1	12.4	11.1
87.5°	2.5	2.5	3.7	3.7	4.9	4.9	4.9	4.9	4.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)