

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: P130109

Luminaire Tested: **HL618TAT - HLM6935 - HL6WFL - 455SN**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P130109  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33487)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HL618TAT - HLM6935 - HL6WFL - 455SN  
Description: HALO ALLSLOPE 6" 30W, Satin Nickel Reflector, Satin Nickel Metal Trim Ring using 55 Degree Optic at a 6-12 Pitch  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2219.1 lumens  
Efficiency: N/A  
Efficacy: 80.4 lumens/watt  
Spacing Criteria (0/90/45): 1.5 / 0.76 / 1.18  
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')  
CIE Type: Direct

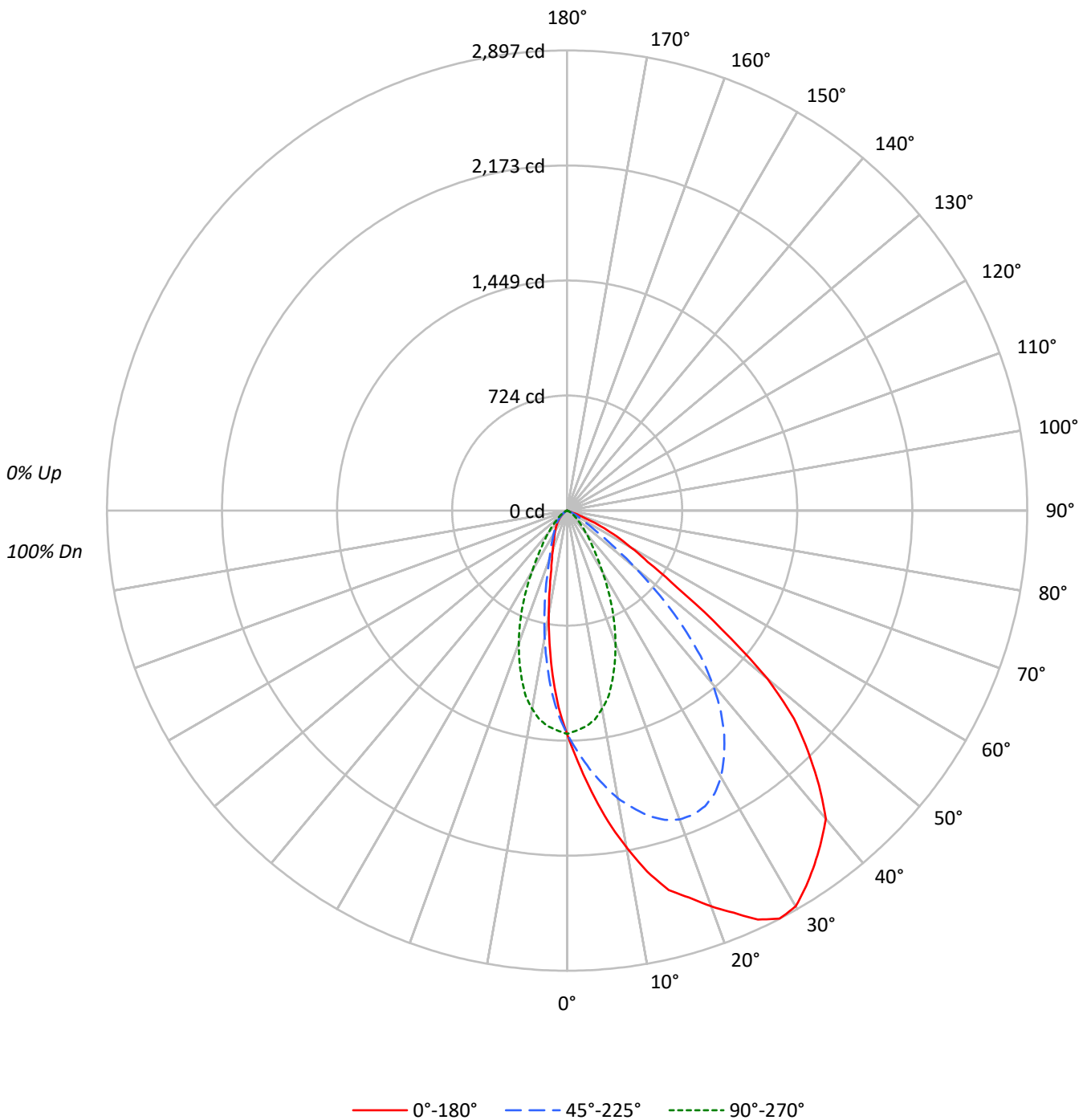
Input Watts (W): 27.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P130109

CATALOG NUMBER: HL618TAT - HLM6935 - HL6WFL - 455SN

### Luminous Intensity Polar Plot





TEST NUMBER: P130109

CATALOG NUMBER: HL618TAT - HLM6935 - HL6WFL - 455SN

**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	77	75	73
4	91	82	75	70	89	81	74	70	79	73	69	76	72	68	74	70	67	65
5	85	75	68	62	83	74	67	62	72	66	62	70	65	61	69	64	60	59
6	80	69	61	56	78	68	61	56	66	60	56	65	59	55	63	58	55	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37

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

	0°	90°	180°
0°	83925	83925	83925
5°	104115	79855	60970
10°	124697	73364	38537
15°	142711	63550	22228
20°	153569	51560	15320
25°	166484	38928	11257
30°	171934	26347	9095
35°	166902	17362	7274
40°	161465	11698	5696
45°	142991	7897	4188
50°	116033	5283	2814
55°	63965	3553	1735
60°	38016	2273	1185
65°	20972	1197	873
70°	3652	605	484
75°	417	417	278
80°	165	329	165
85°	0	407	0



TEST NUMBER: P130109

CATALOG NUMBER: HL618TAT - HLM6935 - HL6WFL - 455SN

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.3	5.9
10°-20°	354.3	16.0
20°-30°	507.5	22.9
30°-40°	554.0	25.0
40°-50°	440.0	19.8
50°-60°	182.0	8.2
60°-70°	45.6	2.1
70°-80°	4.1	0.2
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°	992.1	44.7
0°-40°	1546.1	69.7
0°-60°	2168.0	97.7
0°-90°	2219.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2219.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1406	1406	1406	1406	1406	
5°	1778	1633	1364	1137	1041	181
15°	2474	1992	1102	521	385	699
25°	2841	2053	664	230	192	1304
35°	2717	1725	283	133	118	1700
45°	2144	1029	118	75	63	1640
55°	848	209	47	28	23	827
65°	233	36	13	10	10	234
75°	4	2	4	2	2	9
85°	0	1	2	1	0	0
90°	0	0	0	0	0	



TEST NUMBER: P130109

CATALOG NUMBER: HL618TAT - HLM6935 - HL6WFL - 455SN

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1406.0	1406.0	1406.0	1406.0	1406.0	1406.0	1406.0	1406.0	1406.0
2.5°	1584.8	1532.8	1519.5	1490.6	1385.5	1340.8	1284.0	1241.7	1239.3
5°	1778.0	1694.7	1633.1	1520.8	1363.7	1247.8	1136.6	1055.7	1041.2
7.5°	1973.7	1877.1	1738.2	1555.8	1327.5	1139.1	971.2	863.7	845.5
10°	2153.7	2020.8	1839.6	1573.9	1267.1	1011.0	812.9	688.5	665.6
12.5°	2327.6	2173.0	1916.9	1575.1	1199.4	880.6	658.3	537.5	504.9
15°	2473.8	2298.6	1991.8	1558.2	1101.6	756.1	520.6	408.3	385.3
17.5°	2554.7	2400.1	2041.4	1525.6	998.9	629.3	408.3	328.6	316.5
20°	2651.4	2458.1	2069.1	1476.1	890.2	507.3	327.3	275.4	264.5
22.5°	2740.7	2499.2	2072.8	1409.6	780.3	403.4	274.2	231.9	224.7
25°	2841.0	2529.4	2053.4	1320.2	664.3	324.9	229.5	196.9	192.1
27.5°	2896.6	2542.6	2010.0	1212.7	549.6	270.6	195.7	171.5	170.3
30°	2877.2	2536.6	1937.5	1096.8	440.9	225.9	169.1	153.4	152.2
32.5°	2802.3	2517.3	1838.4	962.7	352.7	190.8	149.8	136.5	134.1
35°	2716.6	2466.5	1724.9	812.9	282.6	160.7	132.9	119.6	118.4
37.5°	2627.2	2366.3	1587.2	689.7	233.1	137.7	117.2	105.1	103.9
40°	2534.2	2216.5	1426.5	558.1	183.6	120.8	102.7	91.8	89.4
42.5°	2348.2	2043.8	1242.9	422.8	148.6	105.1	88.2	78.5	76.1
45°	2144.0	1831.2	1029.1	309.2	118.4	88.2	74.9	65.2	62.8
47.5°	1936.3	1586.0	792.4	207.8	94.2	72.5	60.4	53.1	51.9
50°	1645.2	1267.1	560.5	136.5	74.9	59.2	47.1	42.3	39.9
52.5°	1227.2	921.6	356.3	89.4	60.4	45.9	37.4	32.6	30.2
55°	847.9	626.9	209.0	68.9	47.1	36.2	27.8	23.0	23.0
57.5°	601.5	439.7	132.9	53.1	37.4	26.6	20.5	16.9	16.9
60°	465.0	315.3	85.8	39.9	27.8	20.5	15.7	13.3	14.5
62.5°	350.3	216.2	56.8	30.2	19.3	14.5	12.1	10.9	12.1
65°	233.1	126.8	36.2	19.3	13.3	9.7	9.7	8.5	9.7
67.5°	120.8	56.8	20.5	12.1	8.5	7.2	7.2	7.2	7.2
70°	36.2	20.5	10.9	7.2	6.0	6.0	4.8	4.8	4.8
72.5°	9.7	7.2	6.0	4.8	3.6	4.8	3.6	3.6	3.6
75°	3.6	3.6	2.4	2.4	3.6	3.6	2.4	2.4	2.4
77.5°	1.2	1.2	1.2	2.4	2.4	2.4	2.4	2.4	1.2
80°	1.2	1.2	1.2	2.4	2.4	2.4	1.2	1.2	1.2
82.5°	0.0	1.2	1.2	2.4	2.4	2.4	1.2	1.2	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	0.0	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)