

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: P130110

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130110
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 - HLM6940 - 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 / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2351.5 lumens
Efficiency: N/A
Efficacy: 85.2 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

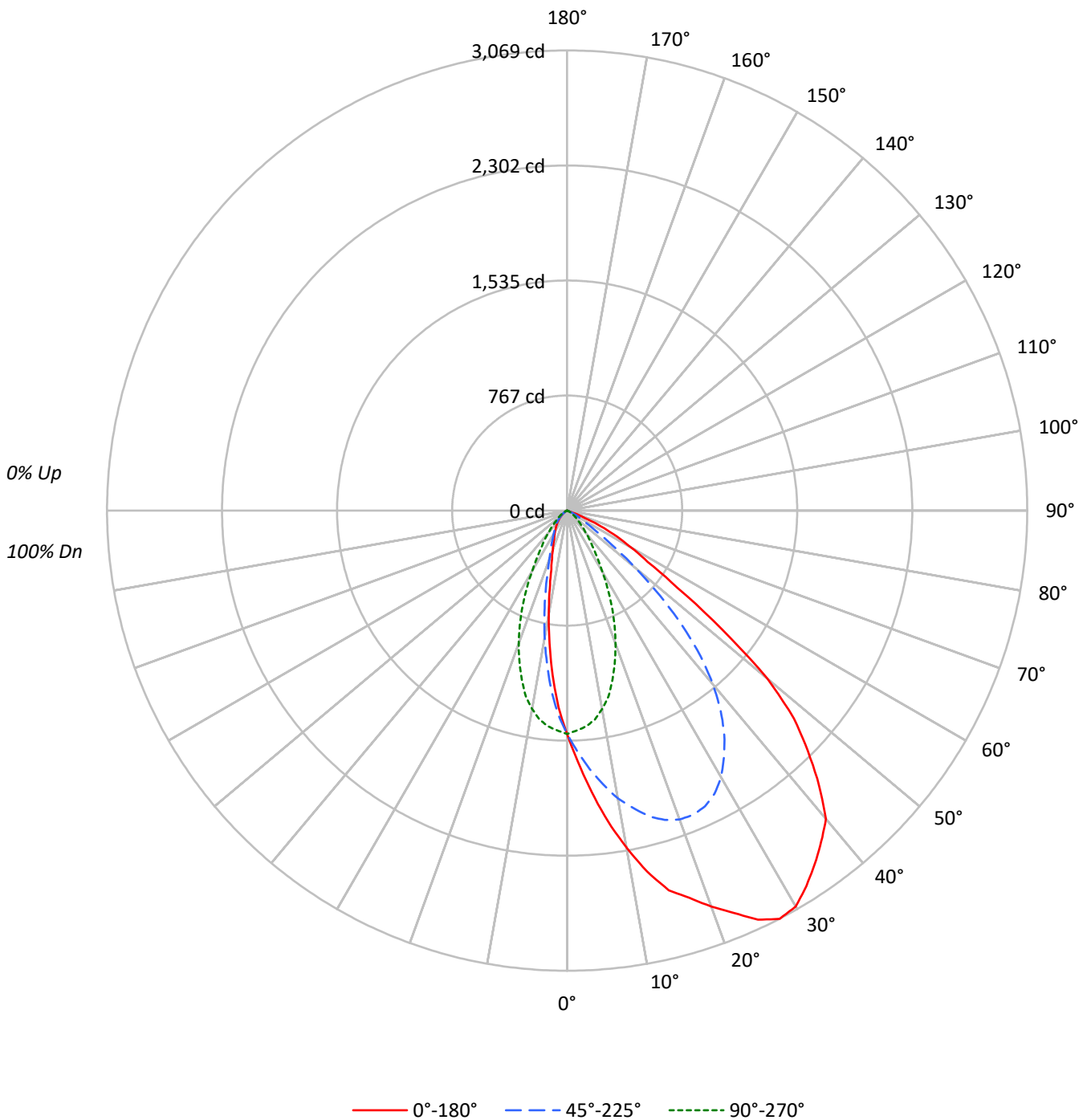
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	77	75	73					73			
4	91	82	75	70	89	81	74	70	79	73	69	76	72	68	74	70	67	65					65			
5	85	75	68	62	83	74	67	62	72	66	62	70	65	61	69	64	60	59					59			
6	80	69	61	56	78	68	61	56	66	60	56	65	59	55	63	58	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48					48			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44					44			
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40					40			
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37					37			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	88927	88927	88927
5°	110322	84615	64606
10°	132131	77735	40830
15°	151214	67340	23554
20°	162720	54636	16235
25°	176405	41249	11925
30°	182182	27919	9639
35°	176849	18401	7704
40°	171086	12392	6034
45°	151515	8363	4442
50°	122944	5600	2976
55°	67782	3764	1833
60°	40289	2404	1259
65°	22223	1269	918
70°	3874	646	514
75°	440	440	301
80°	178	357	178
85°	0	441	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	5.9
10°-20°	375.4	16.0
20°-30°	537.7	22.9
30°-40°	587.0	25.0
40°-50°	466.2	19.8
50°-60°	192.8	8.2
60°-70°	48.4	2.1
70°-80°	4.4	0.2
80°-90°	1.4	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°	1051.2	44.7
0°-40°	1638.2	69.7
0°-60°	2297.2	97.7
0°-90°	2351.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2351.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1490	1490	1490	1490	1490	
5°	1884	1730	1445	1204	1103	192
15°	2621	2110	1167	552	408	740
25°	3010	2176	704	243	204	1382
35°	2878	1828	300	141	125	1801
45°	2272	1090	125	79	67	1738
55°	898	221	50	29	24	876
65°	247	38	14	10	10	248
75°	4	3	4	3	3	9
85°	0	1	3	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°	1489.8	1489.8	1489.8	1489.8	1489.8	1489.8	1489.8	1489.8	1489.8
2.5°	1679.2	1624.2	1610.1	1579.4	1468.0	1420.7	1360.5	1315.7	1313.2
5°	1884.0	1795.7	1730.4	1611.4	1445.0	1322.1	1204.4	1118.6	1103.3
7.5°	2091.3	1989.0	1841.8	1648.5	1406.6	1206.9	1029.0	915.1	895.9
10°	2282.1	2141.3	1949.3	1667.7	1342.6	1071.3	861.4	729.5	705.2
12.5°	2466.4	2302.5	2031.2	1669.0	1270.9	933.0	697.5	569.6	535.0
15°	2621.2	2435.6	2110.5	1651.1	1167.3	801.2	551.6	432.6	408.3
17.5°	2707.0	2543.2	2163.0	1616.5	1058.5	666.8	432.6	348.1	335.3
20°	2809.4	2604.6	2192.5	1564.0	943.3	537.6	346.9	291.8	280.3
22.5°	2904.1	2648.1	2196.3	1493.6	826.8	427.5	290.5	245.7	238.1
25°	3010.3	2680.1	2175.8	1398.9	703.9	344.3	243.2	208.6	203.5
27.5°	3069.2	2694.2	2129.7	1285.0	582.4	286.7	207.3	181.7	180.5
30°	3048.7	2687.8	2053.0	1162.1	467.2	239.3	179.2	162.5	161.3
32.5°	2969.4	2667.3	1948.0	1020.1	373.7	202.2	158.7	144.6	142.1
35°	2878.5	2613.5	1827.7	861.4	299.5	170.2	140.8	126.7	125.4
37.5°	2783.8	2507.3	1681.8	730.8	247.0	145.9	124.1	111.4	110.1
40°	2685.2	2348.6	1511.6	591.3	194.5	128.0	108.8	97.3	94.7
42.5°	2488.1	2165.6	1317.0	448.0	157.4	111.4	93.4	83.2	80.6
45°	2271.8	1940.3	1090.5	327.7	125.4	93.4	79.4	69.1	66.6
47.5°	2051.7	1680.5	839.6	220.1	99.8	76.8	64.0	56.3	55.0
50°	1743.2	1342.6	593.9	144.6	79.4	62.7	49.9	44.8	42.2
52.5°	1300.4	976.6	377.6	94.7	64.0	48.6	39.7	34.6	32.0
55°	898.5	664.3	221.4	73.0	49.9	38.4	29.4	24.3	24.3
57.5°	637.4	465.9	140.8	56.3	39.7	28.2	21.8	17.9	17.9
60°	492.8	334.1	90.9	42.2	29.4	21.8	16.6	14.1	15.4
62.5°	371.2	229.1	60.2	32.0	20.5	15.4	12.8	11.5	12.8
65°	247.0	134.4	38.4	20.5	14.1	10.2	10.2	9.0	10.2
67.5°	128.0	60.2	21.8	12.8	9.0	7.7	7.7	7.7	7.7
70°	38.4	21.8	11.5	7.7	6.4	6.4	5.1	5.1	5.1
72.5°	10.2	7.7	6.4	5.1	3.8	5.1	3.8	3.8	3.8
75°	3.8	3.8	2.6	2.6	3.8	3.8	2.6	2.6	2.6
77.5°	1.3	1.3	1.3	2.6	2.6	2.6	2.6	2.6	1.3
80°	1.3	1.3	1.3	2.6	2.6	2.6	1.3	1.3	1.3
82.5°	0.0	1.3	1.3	2.6	2.6	2.6	1.3	1.3	0.0
85°	0.0	1.3	1.3	2.6	2.6	2.6	1.3	0.0	0.0
87.5°	0.0	0.0	1.3	2.6	2.6	2.6	1.3	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)