

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: P130108

Luminaire Tested: **HL618TAT - HLM6930 - HL6WFL - 455SN**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130108
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 - HLM6930 - 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 / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2126.3 lumens
Efficiency: N/A
Efficacy: 77.0 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

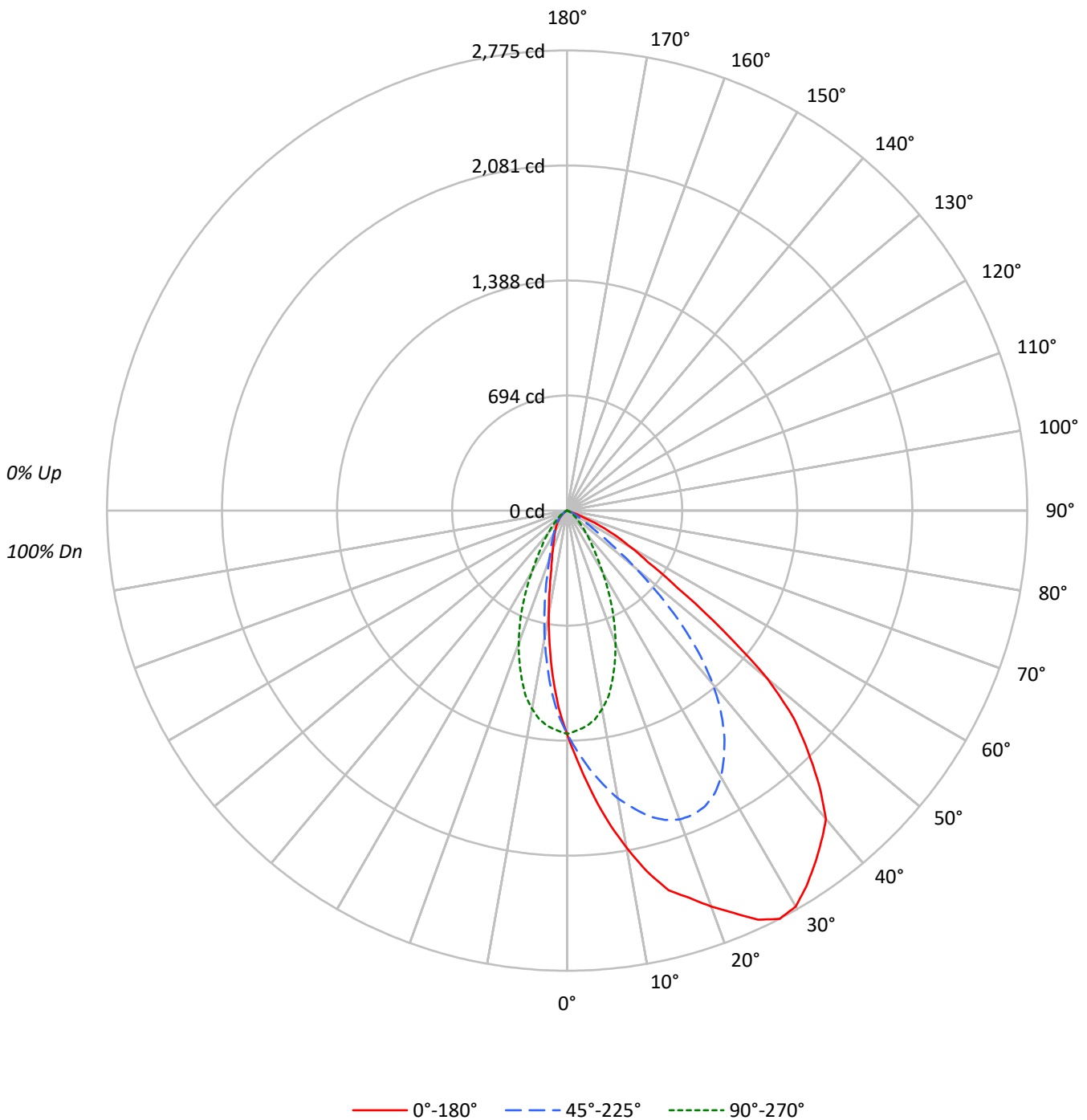
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	80415	80415	80415
5°	99758	76511	58417
10°	119474	70295	36922
15°	136734	60891	21299
20°	147140	49406	14683
25°	159516	37299	10782
30°	164739	25241	8713
35°	159917	16637	6967
40°	154705	11207	5454
45°	137009	7563	4015
50°	111173	5064	2694
55°	61294	3402	1660
60°	36430	2175	1136
65°	20100	1143	837
70°	3500	585	464
75°	405	405	266
80°	165	315	165
85°	0	390	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.9	5.9
10°-20°	339.5	16.0
20°-30°	486.2	22.9
30°-40°	530.8	25.0
40°-50°	421.6	19.8
50°-60°	174.3	8.2
60°-70°	43.7	2.1
70°-80°	4.0	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°	950.6	44.7
0°-40°	1481.3	69.7
0°-60°	2077.3	97.7
0°-90°	2126.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2126.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1347	1347	1347	1347	1347	
5°	1704	1565	1307	1089	998	174
15°	2370	1908	1056	499	369	669
25°	2722	1968	636	220	184	1250
35°	2603	1653	271	127	113	1629
45°	2054	986	113	72	60	1571
55°	812	200	45	27	22	792
65°	223	35	13	9	9	224
75°	4	2	4	2	2	8
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°	1347.2	1347.2	1347.2	1347.2	1347.2	1347.2	1347.2	1347.2	1347.2
2.5°	1518.4	1468.7	1455.9	1428.2	1327.5	1284.7	1230.3	1189.8	1187.4
5°	1703.6	1623.8	1564.7	1457.1	1306.6	1195.5	1089.1	1011.5	997.6
7.5°	1891.1	1798.5	1665.4	1490.7	1271.9	1091.4	930.5	827.5	810.1
10°	2063.5	1936.2	1762.6	1508.0	1214.1	968.7	778.9	659.7	637.7
12.5°	2230.2	2082.1	1836.7	1509.2	1149.2	843.7	630.8	515.0	483.8
15°	2370.2	2202.4	1908.5	1493.0	1055.5	724.5	498.8	391.2	369.2
17.5°	2447.8	2299.6	1955.9	1461.7	957.1	603.0	391.2	314.8	303.2
20°	2540.4	2355.2	1982.5	1414.3	853.0	486.1	313.6	263.9	253.5
22.5°	2626.0	2394.6	1986.0	1350.6	747.6	386.6	262.7	222.2	215.3
25°	2722.1	2423.5	1967.5	1265.0	636.5	311.3	219.9	188.6	184.0
27.5°	2775.3	2436.2	1925.8	1162.0	526.6	259.2	187.5	164.3	163.2
30°	2756.8	2430.4	1856.4	1050.9	422.4	216.4	162.0	147.0	145.8
32.5°	2685.0	2411.9	1761.5	922.4	337.9	182.9	143.5	130.8	128.5
35°	2602.9	2363.3	1652.7	778.9	270.8	153.9	127.3	114.6	113.4
37.5°	2517.2	2267.2	1520.8	660.8	223.4	131.9	112.3	100.7	99.5
40°	2428.1	2123.7	1366.8	534.7	175.9	115.7	98.4	88.0	85.6
42.5°	2249.9	1958.2	1190.9	405.1	142.4	100.7	84.5	75.2	72.9
45°	2054.3	1754.5	986.1	296.3	113.4	84.5	71.8	62.5	60.2
47.5°	1855.2	1519.6	759.2	199.1	90.3	69.4	57.9	50.9	49.8
50°	1576.3	1214.1	537.0	130.8	71.8	56.7	45.1	40.5	38.2
52.5°	1175.9	883.1	341.4	85.6	57.9	44.0	35.9	31.2	28.9
55°	812.5	600.7	200.2	66.0	45.1	34.7	26.6	22.0	22.0
57.5°	576.4	421.3	127.3	50.9	35.9	25.5	19.7	16.2	16.2
60°	445.6	302.1	82.2	38.2	26.6	19.7	15.0	12.7	13.9
62.5°	335.6	207.2	54.4	28.9	18.5	13.9	11.6	10.4	11.6
65°	223.4	121.5	34.7	18.5	12.7	9.3	9.3	8.1	9.3
67.5°	115.7	54.4	19.7	11.6	8.1	6.9	6.9	6.9	6.9
70°	34.7	19.7	10.4	6.9	5.8	5.8	4.6	4.6	4.6
72.5°	9.3	6.9	5.8	4.6	3.5	4.6	3.5	3.5	3.5
75°	3.5	3.5	2.3	2.3	3.5	3.5	2.3	2.3	2.3
77.5°	1.2	1.2	1.2	2.3	2.3	2.3	2.3	2.3	1.2
80°	1.2	1.2	1.2	2.3	2.3	2.3	1.2	1.2	1.2
82.5°	0.0	1.2	1.2	2.3	2.3	2.3	1.2	1.2	0.0
85°	0.0	1.2	1.2	2.3	2.3	2.3	1.2	0.0	0.0
87.5°	0.0	0.0	1.2	2.3	2.3	2.3	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)