

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: P130243

Luminaire Tested: **HL612ICAT - HLM6930 - HL6WFL - 455SN**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130243
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: HL612ICAT - HLM6930 - HL6WFL - 455SN
Description: HALO ALLSLOPE 6" 21W, 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: 1527.6 lumens
Efficiency: N/A
Efficacy: 80.0 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

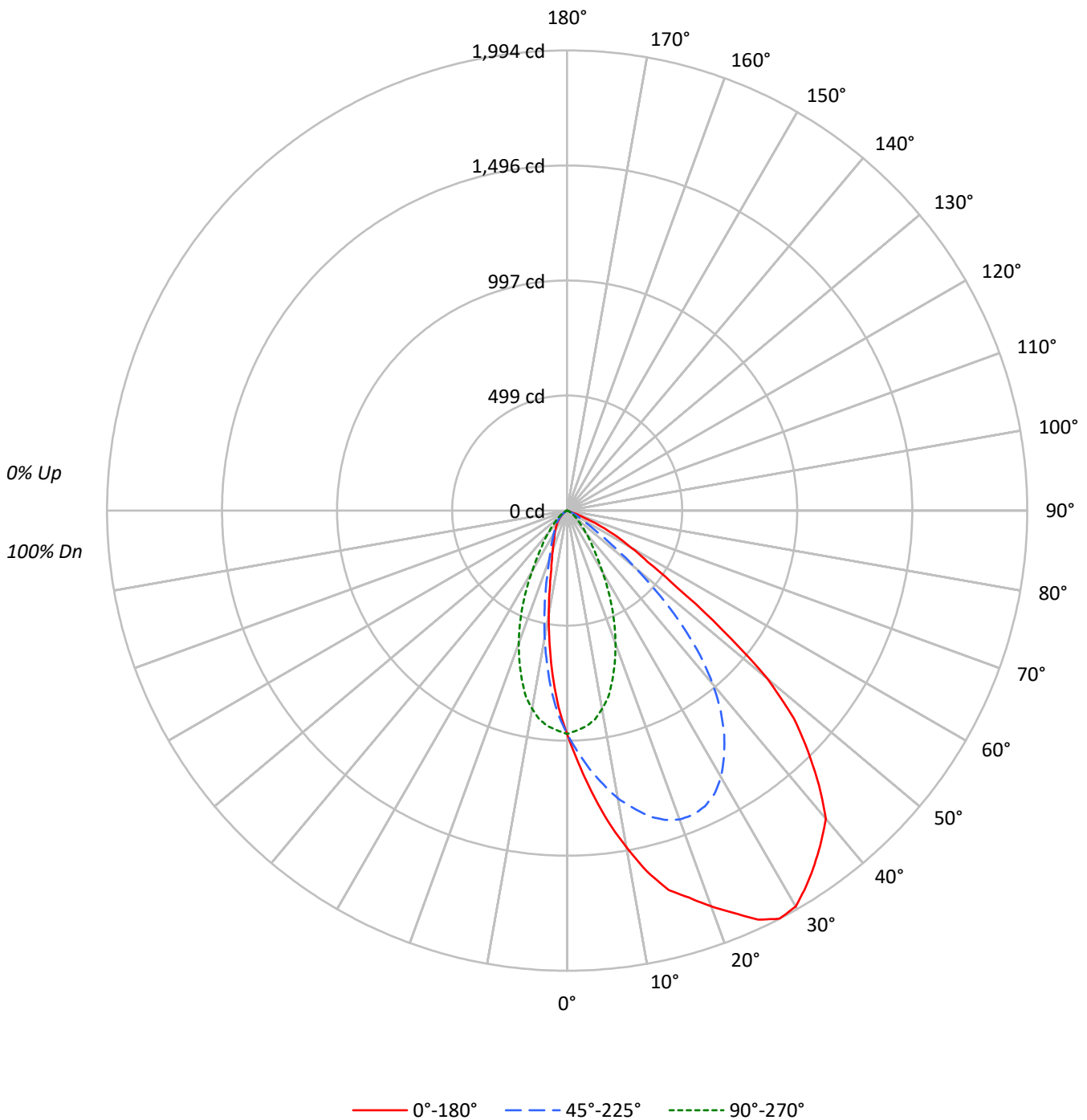
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	57769	57769	57769
5°	71668	54968	41968
10°	85835	50499	26523
15°	98233	43746	15299
20°	105710	35493	10547
25°	114599	26798	7747
30°	118349	18136	6263
35°	114889	11956	5007
40°	111144	8054	3918
45°	98426	5436	2881
50°	79873	3639	1932
55°	44034	2444	1192
60°	26170	1562	818
65°	14440	819	603
70°	2512	424	333
75°	289	289	197
80°	110	233	110
85°	0	288	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.7	5.9
10°-20°	243.9	16.0
20°-30°	349.3	22.9
30°-40°	381.3	25.0
40°-50°	302.9	19.8
50°-60°	125.2	8.2
60°-70°	31.4	2.1
70°-80°	2.9	0.2
80°-90°	0.9	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°	682.9	44.7
0°-40°	1064.2	69.7
0°-60°	1492.4	97.7
0°-90°	1527.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1527.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	968	968	968	968	968	
5°	1224	1124	939	782	717	125
15°	1703	1371	758	358	265	481
25°	1956	1414	457	158	132	898
35°	1870	1187	195	92	82	1170
45°	1476	708	82	52	43	1129
55°	584	144	32	19	16	569
65°	160	25	9	7	7	161
75°	2	2	2	2	2	6
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°	967.8	967.8	967.8	967.8	967.8	967.8	967.8	967.8	967.8
2.5°	1090.9	1055.1	1046.0	1026.0	953.7	922.9	883.8	854.7	853.1
5°	1223.9	1166.5	1124.1	1046.8	938.7	858.9	782.4	726.7	716.7
7.5°	1358.6	1292.1	1196.5	1070.9	913.8	784.1	668.5	594.5	582.0
10°	1482.5	1391.0	1266.3	1083.4	872.2	695.9	559.6	473.9	458.1
12.5°	1602.2	1495.8	1319.5	1084.2	825.6	606.1	453.1	370.0	347.6
15°	1702.8	1582.3	1371.1	1072.6	758.3	520.5	358.4	281.0	265.2
17.5°	1758.5	1652.1	1405.2	1050.1	687.6	433.2	281.0	226.2	217.8
20°	1825.1	1692.0	1424.3	1016.0	612.8	349.2	225.3	189.6	182.1
22.5°	1886.6	1720.3	1426.8	970.3	537.1	277.7	188.7	159.6	154.7
25°	1955.6	1741.1	1413.5	908.8	457.3	223.7	158.0	135.5	132.2
27.5°	1993.8	1750.2	1383.6	834.8	378.3	186.2	134.7	118.1	117.2
30°	1980.5	1746.1	1333.7	755.0	303.5	155.5	116.4	105.6	104.8
32.5°	1929.0	1732.8	1265.5	662.7	242.8	131.4	103.1	94.0	92.3
35°	1870.0	1697.8	1187.3	559.6	194.6	110.6	91.5	82.3	81.5
37.5°	1808.4	1628.8	1092.5	474.8	160.5	94.8	80.7	72.3	71.5
40°	1744.4	1525.7	982.0	384.1	126.4	83.1	70.7	63.2	61.5
42.5°	1616.4	1406.8	855.6	291.0	102.3	72.3	60.7	54.0	52.4
45°	1475.8	1260.5	708.4	212.9	81.5	60.7	51.6	44.9	43.2
47.5°	1332.8	1091.7	545.4	143.0	64.9	49.9	41.6	36.6	35.8
50°	1132.5	872.2	385.8	94.0	51.6	40.7	32.4	29.1	27.4
52.5°	844.8	634.4	245.3	61.5	41.6	31.6	25.8	22.4	20.8
55°	583.7	431.5	143.8	47.4	32.4	24.9	19.1	15.8	15.8
57.5°	414.1	302.7	91.5	36.6	25.8	18.3	14.1	11.6	11.6
60°	320.1	217.0	59.0	27.4	19.1	14.1	10.8	9.1	10.0
62.5°	241.1	148.8	39.1	20.8	13.3	10.0	8.3	7.5	8.3
65°	160.5	87.3	24.9	13.3	9.1	6.7	6.7	5.8	6.7
67.5°	83.1	39.1	14.1	8.3	5.8	5.0	5.0	5.0	5.0
70°	24.9	14.1	7.5	5.0	4.2	4.2	3.3	3.3	3.3
72.5°	6.7	5.0	4.2	3.3	2.5	3.3	2.5	2.5	2.5
75°	2.5	2.5	1.7	1.7	2.5	2.5	1.7	1.7	1.7
77.5°	0.8	0.8	0.8	1.7	1.7	1.7	1.7	1.7	0.8
80°	0.8	0.8	0.8	1.7	1.7	1.7	0.8	0.8	0.8
82.5°	0.0	0.8	0.8	1.7	1.7	1.7	0.8	0.8	0.0
85°	0.0	0.8	0.8	1.7	1.7	1.7	0.8	0.0	0.0
87.5°	0.0	0.0	0.8	1.7	1.7	1.7	0.8	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)