

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 COMMERCIAL

Report Number: P582646

Luminaire Tested: **HC645D010-HM64560927-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582646
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560927-61WWW
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3511.3 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.06 / 1.14
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

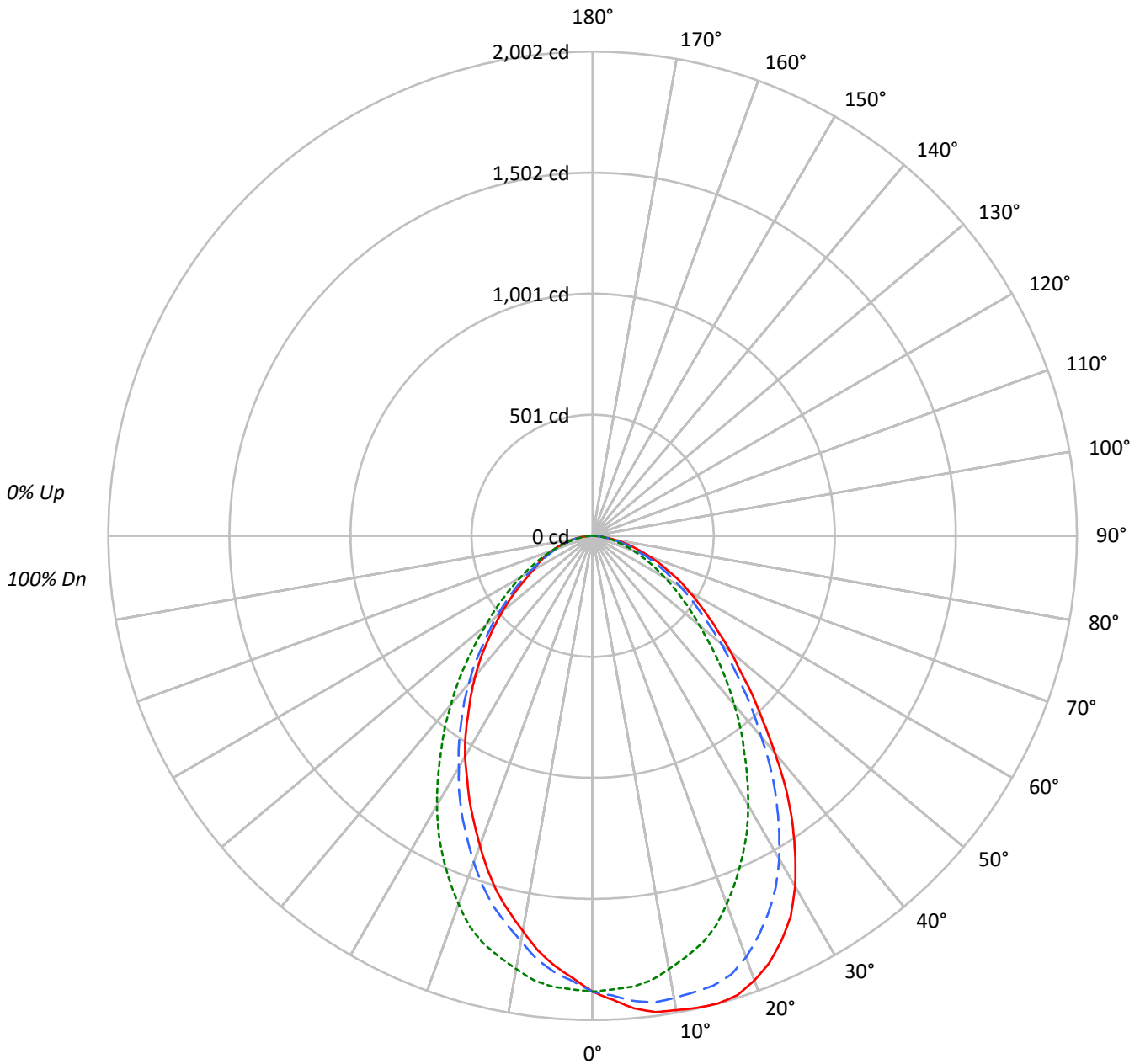
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87					87			
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76					76			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51					51			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46					46			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42					42			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38					38			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34					34			
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32					32			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	103336	103336	103336
5°	107918	103032	98283
10°	110859	101256	92361
15°	113605	99058	86539
20°	114110	94572	79474
25°	111714	88541	72887
30°	105997	81418	66801
35°	96262	73180	59936
40°	83879	65179	53922
45°	72581	57037	47400
50°	63392	49116	41542
55°	56008	43162	35640
60°	50347	37826	30875
65°	45089	32909	29938
70°	40247	28050	28050
75°	34927	23659	26328
80°	28034	20047	24025
85°	19184	17549	20757



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.2	5.0
10°-20°	492.5	14.0
20°-30°	686.3	19.5
30°-40°	707.1	20.1
40°-50°	586.1	16.7
50°-60°	421.2	12.0
60°-70°	268.2	7.6
70°-80°	137.7	3.9
80°-90°	35.1	1.0
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°	1355.9	38.6
0°-40°	2063.1	58.8
0°-60°	3070.3	87.4
0°-90°	3511.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3511.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1885	1885	1885	1885	1885	
5°	1961	1931	1872	1811	1786	188
15°	2002	1926	1745	1586	1525	564
25°	1847	1720	1464	1276	1205	846
35°	1438	1322	1094	949	896	894
45°	936	870	736	642	611	725
55°	586	538	452	401	373	528
65°	348	310	254	221	231	348
75°	165	142	112	117	124	176
85°	30	28	28	30	33	39
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°	1885.0	1885.0	1885.0	1885.0	1885.0	1885.0	1885.0	1885.0	1885.0
2.5°	1920.6	1912.9	1902.7	1892.6	1877.4	1859.6	1844.4	1839.3	1831.8
5°	1961.1	1950.9	1930.6	1905.3	1872.3	1839.3	1811.3	1793.6	1786.0
7.5°	1986.5	1973.8	1945.9	1902.7	1854.5	1806.3	1765.7	1740.4	1730.2
10°	1991.5	1978.9	1940.8	1882.4	1819.0	1753.0	1702.3	1671.9	1659.2
12.5°	1999.1	1981.4	1933.2	1864.7	1783.5	1707.4	1644.0	1606.0	1593.2
15°	2001.7	1981.4	1925.6	1841.8	1745.4	1654.2	1585.7	1539.9	1524.8
17.5°	1991.5	1968.6	1902.7	1801.3	1692.2	1595.7	1514.6	1466.4	1446.1
20°	1956.0	1930.6	1854.5	1740.4	1621.1	1519.6	1436.0	1385.2	1362.3
22.5°	1910.3	1877.4	1791.1	1669.3	1545.1	1438.4	1354.7	1304.0	1281.2
25°	1846.9	1816.5	1720.1	1590.7	1463.8	1352.2	1276.1	1222.9	1205.0
27.5°	1773.3	1737.8	1638.9	1509.5	1380.2	1268.5	1194.9	1146.7	1123.9
30°	1674.5	1641.4	1542.5	1413.1	1286.2	1182.3	1106.1	1065.6	1055.3
32.5°	1557.7	1529.8	1433.4	1311.6	1189.9	1093.5	1030.0	986.8	976.8
35°	1438.4	1405.5	1321.7	1207.6	1093.5	1007.1	948.8	910.8	895.6
37.5°	1309.1	1278.7	1207.6	1106.1	1004.7	923.5	872.7	839.8	824.5
40°	1172.1	1149.3	1083.3	1002.1	910.8	839.8	796.6	768.7	753.5
42.5°	1045.3	1022.4	976.8	900.6	824.5	761.0	723.0	697.7	685.0
45°	936.2	915.9	870.1	804.2	735.7	682.5	641.9	624.2	611.4
47.5°	827.1	816.9	776.3	715.4	652.0	606.3	578.4	558.1	548.0
50°	743.3	730.7	692.5	629.2	575.9	540.4	515.1	497.2	487.1
52.5°	657.1	644.4	608.9	555.7	512.5	479.5	454.1	438.9	428.7
55°	586.0	575.9	537.8	489.6	451.6	423.7	400.8	383.1	372.9
57.5°	520.1	509.9	474.4	428.7	395.8	370.4	350.1	334.9	322.2
60°	459.2	451.6	416.1	372.9	345.0	319.6	301.9	289.3	281.6
62.5°	406.0	390.7	360.2	322.2	296.8	276.5	258.8	251.1	256.2
65°	347.6	339.9	309.6	276.5	253.7	233.4	220.8	225.8	230.8
67.5°	299.3	289.3	263.8	233.4	213.1	197.9	190.3	200.5	202.9
70°	251.1	241.1	218.2	192.8	175.0	164.9	164.9	172.5	175.0
72.5°	205.5	197.9	177.6	157.3	144.6	137.0	142.1	147.1	149.7
75°	164.9	157.3	142.1	124.3	111.7	111.7	116.7	121.8	124.3
77.5°	126.8	121.8	106.5	93.8	88.8	88.8	93.8	96.4	98.9
80°	88.8	83.8	76.1	68.5	63.5	68.5	73.5	73.5	76.1
82.5°	58.3	55.8	50.8	45.6	45.6	48.2	50.8	53.3	53.3
85°	30.5	30.5	27.9	25.3	27.9	30.5	30.5	33.0	33.0
87.5°	10.2	10.2	10.2	10.2	12.7	12.7	12.7	12.7	12.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)