

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: P582609

Luminaire Tested: **HC645D010-HM64560835-61WWBB**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582609
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560835-61WWBB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4362.1 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.06 / 1.14
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

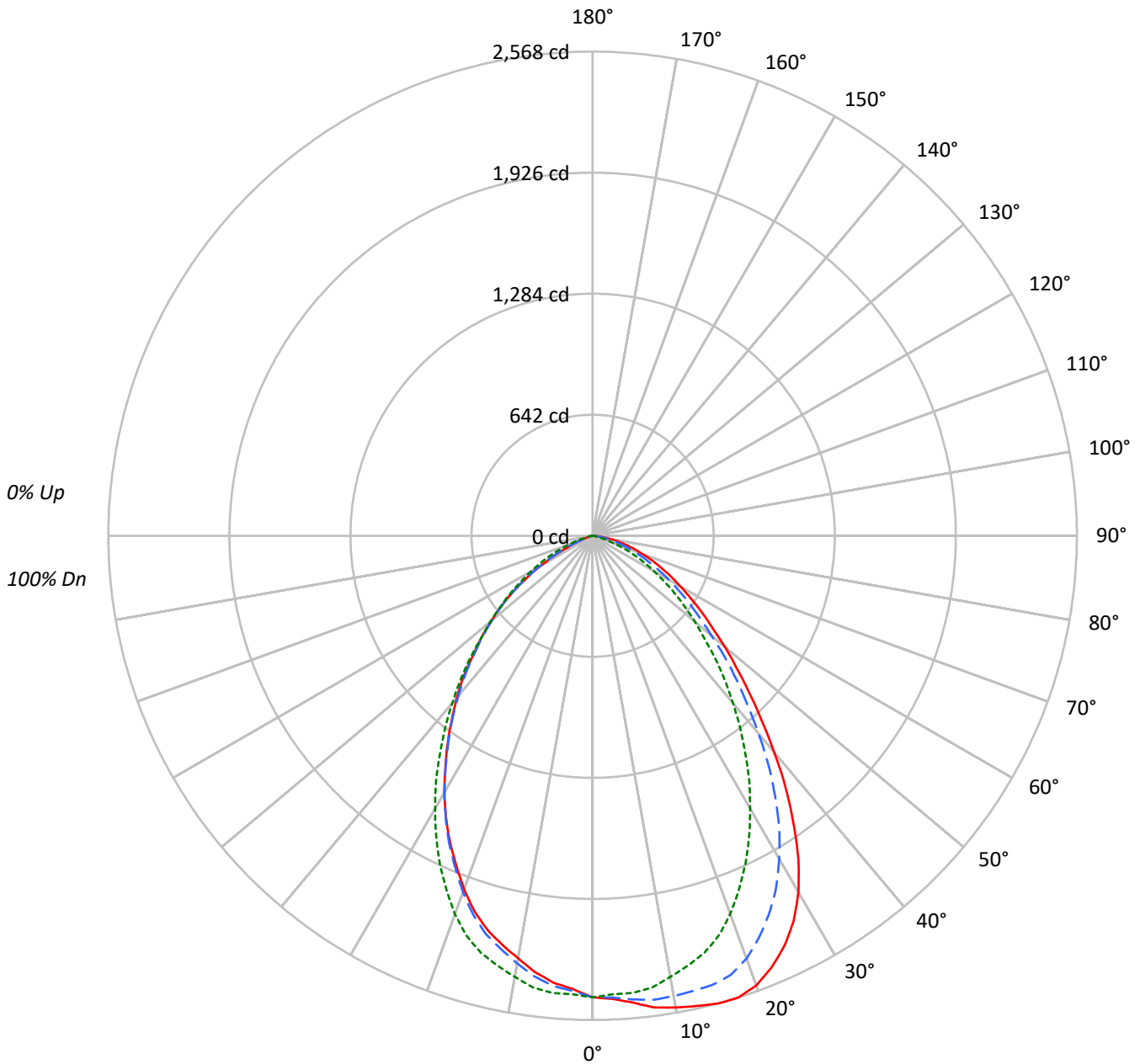
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89	89	89	89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78	78	78	78
3	96	87	80	75	93	86	79	74	83	77	73	80	76	72	78	74	71	69	69	69	69
4	89	79	71	66	87	78	71	65	75	69	64	73	68	64	71	66	63	61	61	61	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54	54	54	54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49	49	49	49
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44	44	44	44
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40	40	40	40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37	37	37	37
10	60	48	40	36	58	47	40	36	46	40	36	45	40	35	45	39	35	34	34	34	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	134189	134189	134189
5°	136787	133947	130915
10°	141436	132240	126679
15°	145761	129938	122708
20°	148022	124523	116292
25°	145357	115991	108284
30°	138167	105700	99376
35°	124189	94469	89623
40°	107172	82784	80071
45°	90746	71271	69395
50°	77814	60194	59606
55°	67458	50674	48706
60°	58888	41137	34723
65°	51808	31715	19198
70°	44687	20965	9377
75°	37914	10209	3643
80°	29328	4325	2178
85°	17360	2139	2139



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.0	5.3
10°-20°	653.2	15.0
20°-30°	919.9	21.1
30°-40°	939.9	21.5
40°-50°	757.8	17.4
50°-60°	508.3	11.7
60°-70°	257.2	5.9
70°-80°	82.2	1.9
80°-90°	12.6	0.3
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°	1804.1	41.4
0°-40°	2744.0	62.9
0°-60°	4010.0	91.9
0°-90°	4362.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4362.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2448	2448	2448	2448	2448	
5°	2486	2468	2434	2396	2379	239
15°	2568	2465	2290	2186	2162	725
25°	2403	2214	1918	1801	1790	1100
35°	1856	1687	1412	1332	1339	1155
45°	1170	1078	919	888	895	910
55°	706	627	530	506	510	635
65°	399	331	244	162	148	399
75°	179	127	48	17	17	192
85°	28	14	3	3	3	37
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°	2447.8	2447.8	2447.8	2447.8	2447.8	2447.8	2447.8	2447.8	2447.8
2.5°	2458.1	2454.7	2451.3	2444.4	2434.1	2423.8	2416.8	2409.9	2406.5
5°	2485.7	2478.8	2468.5	2454.7	2434.1	2409.9	2396.2	2382.5	2379.0
7.5°	2523.6	2509.8	2482.3	2451.3	2416.8	2382.5	2358.3	2344.6	2334.3
10°	2540.8	2516.7	2478.8	2427.2	2375.6	2334.3	2303.2	2282.5	2275.7
12.5°	2554.6	2527.0	2472.0	2403.1	2334.3	2279.1	2244.8	2227.5	2220.6
15°	2568.3	2540.8	2465.1	2375.6	2289.5	2224.0	2186.2	2169.0	2162.1
17.5°	2568.3	2530.5	2440.9	2327.3	2224.0	2144.8	2106.9	2089.8	2086.3
20°	2537.3	2496.0	2385.9	2251.6	2134.5	2045.0	2010.6	2000.3	1993.4
22.5°	2478.8	2430.6	2306.7	2155.2	2027.8	1941.8	1903.9	1897.0	1890.1
25°	2403.1	2354.9	2213.7	2051.9	1917.6	1831.5	1800.6	1793.8	1790.2
27.5°	2306.7	2255.1	2106.9	1941.8	1797.2	1714.6	1687.0	1687.0	1683.5
30°	2182.7	2124.2	1979.7	1814.4	1669.8	1594.0	1573.3	1573.3	1569.9
32.5°	2031.3	1972.8	1841.8	1683.5	1545.8	1466.6	1449.5	1456.3	1452.9
35°	1855.7	1807.5	1687.0	1532.1	1411.6	1339.2	1332.4	1339.2	1339.2
37.5°	1680.1	1635.3	1532.1	1397.7	1284.2	1218.7	1218.7	1229.1	1225.7
40°	1497.6	1463.2	1366.8	1249.7	1156.8	1112.0	1105.1	1115.5	1118.9
42.5°	1325.5	1297.9	1215.3	1118.9	1036.2	991.5	1001.9	1008.8	1012.2
45°	1170.5	1143.0	1077.6	977.8	919.3	888.2	888.2	898.5	895.1
47.5°	1032.8	1012.2	946.7	850.4	798.7	785.0	791.9	798.7	798.7
50°	912.4	881.4	819.3	743.7	705.8	688.6	695.5	698.9	698.9
52.5°	798.7	778.1	716.1	647.3	612.8	602.5	602.5	606.0	606.0
55°	705.8	681.6	626.6	557.8	530.2	516.5	506.1	502.6	509.6
57.5°	616.3	595.6	543.9	478.6	447.6	433.8	413.1	406.2	413.1
60°	537.1	519.9	468.3	406.2	375.2	347.7	323.6	309.9	316.7
62.5°	468.3	447.6	395.9	344.3	309.9	278.8	241.1	220.3	230.6
65°	399.4	382.2	330.6	278.8	244.5	206.6	161.8	148.0	148.0
67.5°	337.4	320.2	272.0	227.2	185.9	141.1	99.8	96.4	99.8
70°	278.8	261.7	220.3	175.6	130.8	86.1	58.5	58.5	58.5
72.5°	230.6	210.0	172.2	127.4	82.6	44.8	31.0	34.5	34.5
75°	179.0	161.8	127.4	86.1	48.2	20.6	17.2	17.2	17.2
77.5°	134.3	120.5	89.5	55.1	24.0	6.9	6.9	6.9	6.9
80°	92.9	79.2	58.5	34.5	13.7	6.9	6.9	6.9	6.9
82.5°	55.1	48.2	34.5	17.2	6.9	3.4	3.4	3.4	3.4
85°	27.6	24.0	13.7	6.9	3.4	3.4	3.4	3.4	3.4
87.5°	6.9	6.9	3.4	3.4	0.0	3.4	3.4	0.0	0.0
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)