

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: P593338

Luminaire Tested: **HC645D010-HM64560950-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593338
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-HM64560950-61WWW
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4378.1 lumens
Efficiency: N/A
Efficacy: 99.5 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

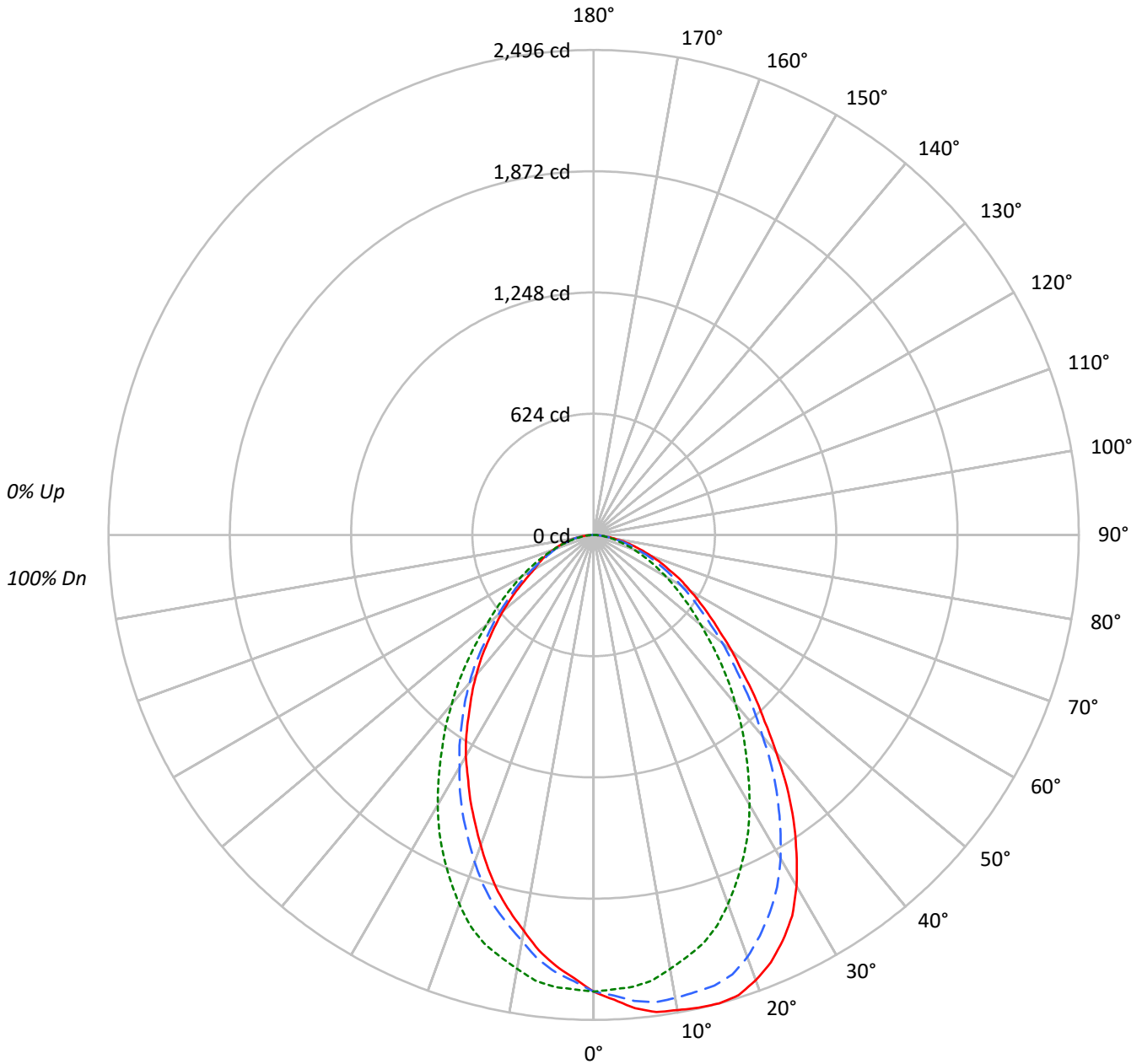
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87								
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76								
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58								
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51								
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46								
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42								
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38								
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34								
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	128844	128844	128844
5°	134558	128467	122545
10°	138229	126256	115162
15°	141647	123519	107895
20°	142282	117919	99099
25°	139290	110402	90888
30°	132160	101522	83298
35°	120033	91243	74733
40°	104582	81267	67233
45°	90498	71124	59099
50°	79042	61243	51802
55°	69847	53809	44443
60°	62769	47178	38495
65°	56219	41042	37345
70°	50201	34990	34990
75°	43548	29484	32830
80°	34948	24972	29960
85°	23902	21889	25914



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.9	5.0
10°-20°	614.0	14.0
20°-30°	855.7	19.5
30°-40°	881.7	20.1
40°-50°	730.7	16.7
50°-60°	525.1	12.0
60°-70°	334.4	7.6
70°-80°	171.7	3.9
80°-90°	43.7	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°	1690.7	38.6
0°-40°	2572.4	58.8
0°-60°	3828.3	87.4
0°-90°	4378.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4378.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2350	2350	2350	2350	2350	
5°	2445	2407	2334	2259	2227	234
15°	2496	2401	2176	1977	1901	703
25°	2303	2145	1825	1591	1503	1055
35°	1794	1648	1363	1183	1117	1114
45°	1167	1085	917	800	762	903
55°	731	671	563	500	465	658
65°	433	386	316	275	288	434
75°	206	177	139	146	155	219
85°	38	35	35	38	41	49
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°	2350.3	2350.3	2350.3	2350.3	2350.3	2350.3	2350.3	2350.3	2350.3
2.5°	2394.6	2385.2	2372.5	2359.8	2340.8	2318.7	2299.7	2293.3	2283.9
5°	2445.2	2432.6	2407.2	2375.7	2334.5	2293.3	2258.6	2236.4	2226.9
7.5°	2476.9	2461.1	2426.2	2372.5	2312.3	2252.3	2201.6	2170.0	2157.4
10°	2483.2	2467.4	2419.9	2347.2	2268.1	2185.9	2122.5	2084.7	2068.8
12.5°	2492.6	2470.6	2410.4	2325.0	2223.8	2128.9	2049.8	2002.3	1986.6
15°	2495.8	2470.6	2400.9	2296.5	2176.4	2062.5	1977.1	1920.1	1901.1
17.5°	2483.2	2454.7	2372.5	2245.9	2109.9	1989.8	1888.5	1828.4	1803.0
20°	2438.9	2407.2	2312.3	2170.0	2021.3	1894.9	1790.5	1727.1	1698.7
22.5°	2382.0	2340.8	2233.3	2081.5	1926.4	1793.6	1689.2	1625.9	1597.5
25°	2302.8	2264.9	2144.7	1983.4	1825.2	1686.1	1591.2	1524.7	1502.6
27.5°	2211.1	2166.9	2043.5	1882.2	1720.8	1581.7	1489.9	1429.8	1401.4
30°	2087.8	2046.7	1923.3	1762.0	1603.8	1474.1	1379.2	1328.5	1315.9
32.5°	1942.3	1907.4	1787.3	1635.4	1483.6	1363.4	1284.3	1230.5	1217.9
35°	1793.6	1752.5	1648.1	1505.8	1363.4	1255.8	1183.1	1135.6	1116.7
37.5°	1632.2	1594.3	1505.8	1379.2	1252.6	1151.4	1088.2	1047.0	1028.0
40°	1461.4	1432.9	1350.7	1249.5	1135.6	1047.0	993.3	958.5	939.5
42.5°	1303.3	1274.8	1217.9	1122.9	1028.0	949.0	901.6	869.9	854.1
45°	1167.3	1141.9	1085.0	1002.8	917.4	850.9	800.3	778.2	762.3
47.5°	1031.2	1018.6	968.0	892.1	813.0	756.0	721.3	695.9	683.3
50°	926.8	911.1	863.6	784.5	718.1	673.8	642.1	620.0	607.4
52.5°	819.3	803.5	759.2	692.8	638.9	597.9	566.2	547.2	534.7
55°	730.8	718.1	670.6	610.5	563.0	528.3	499.8	477.6	465.0
57.5°	648.4	635.8	591.5	534.7	493.5	461.8	436.6	417.6	401.8
60°	572.5	563.0	518.8	465.0	430.3	398.6	376.4	360.6	351.1
62.5°	506.1	487.1	449.1	401.8	370.1	344.7	322.7	313.2	319.5
65°	433.4	423.9	385.9	344.7	316.4	291.0	275.2	281.5	287.9
67.5°	373.2	360.6	329.0	291.0	265.7	246.7	237.3	249.8	253.0
70°	313.2	300.5	272.0	240.5	218.3	205.6	205.6	215.1	218.3
72.5°	256.2	246.7	221.5	196.1	180.3	170.8	177.1	183.5	186.6
75°	205.6	196.1	177.1	155.0	139.2	139.2	145.6	151.8	155.0
77.5°	158.1	151.8	132.9	117.1	110.7	110.7	117.1	120.2	123.4
80°	110.7	104.4	94.9	85.4	79.1	85.4	91.7	91.7	94.9
82.5°	72.7	69.6	63.2	56.9	56.9	60.1	63.2	66.4	66.4
85°	38.0	38.0	34.8	31.7	34.8	38.0	38.0	41.2	41.2
87.5°	12.7	12.7	12.7	12.7	15.8	15.8	15.8	15.8	15.8
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)