

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: P593337

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

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593337  
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-HM64560950-61WWBB  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4008.0 lumens  
Efficiency: N/A  
Efficacy: 91.1 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

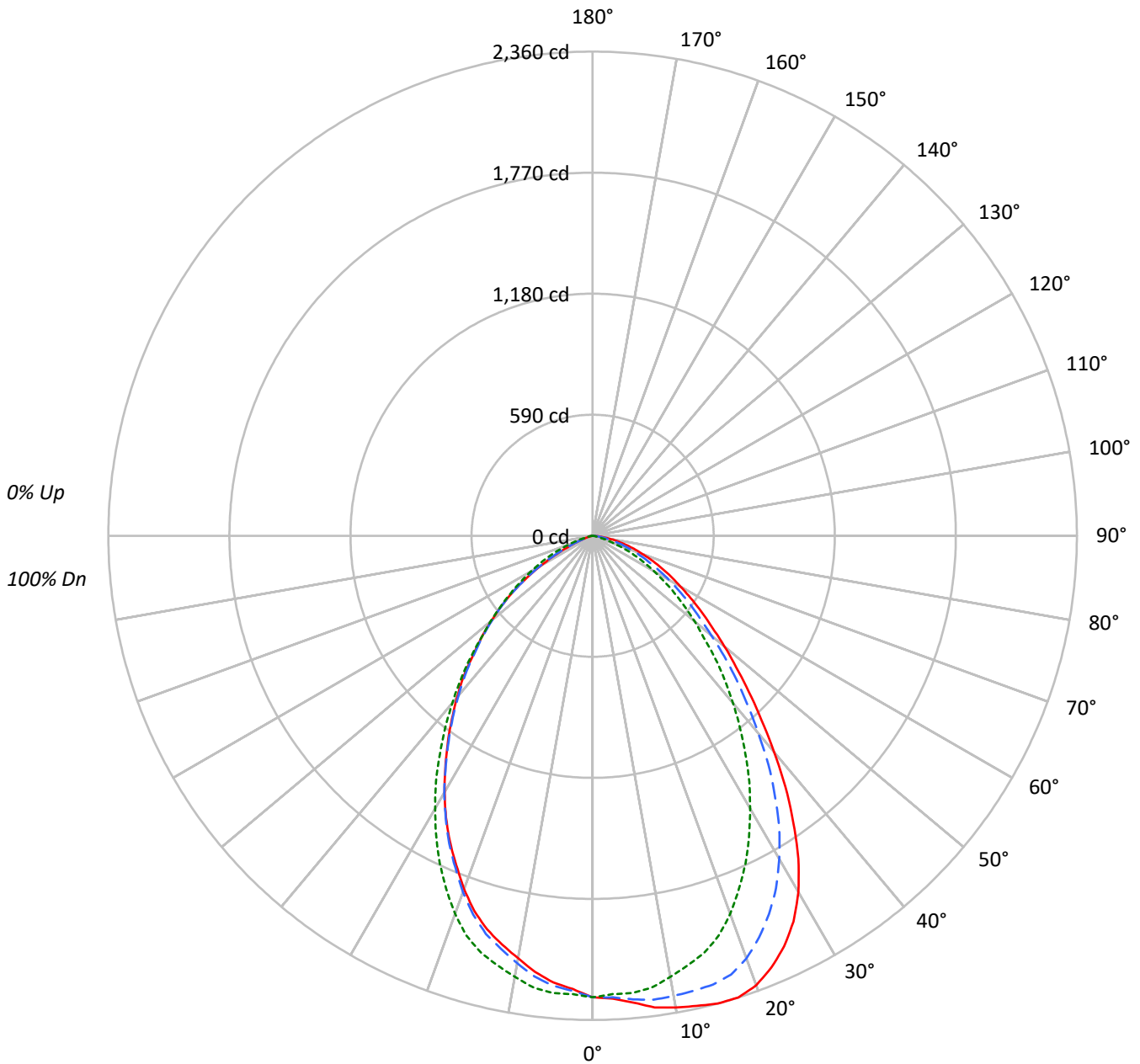
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	123296	123296	123296
5°	125682	123068	120289
10°	129952	121502	116397
15°	133928	119393	112748
20°	136004	114419	106847
25°	133562	106579	99496
30°	126956	97116	91305
35°	114111	86799	82349
40°	98470	76064	73574
45°	83381	65480	63766
50°	71486	55299	54762
55°	61972	46555	44739
60°	54108	37793	31905
65°	47593	29134	17654
70°	41065	19266	8607
75°	34843	9383	3347
80°	26961	4009	1989
85°	15913	2013	2013



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	212.2	5.3
10°-20°	600.2	15.0
20°-30°	845.2	21.1
30°-40°	863.6	21.5
40°-50°	696.3	17.4
50°-60°	467.0	11.7
60°-70°	236.3	5.9
70°-80°	75.5	1.9
80°-90°	11.7	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°	1657.7	41.4
0°-40°	2521.2	62.9
0°-60°	3684.5	91.9
0°-90°	4008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4008.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2249	2249	2249	2249	2249	
5°	2284	2268	2236	2202	2186	220
15°	2360	2265	2104	2009	1987	666
25°	2208	2034	1762	1654	1645	1011
35°	1705	1550	1297	1224	1230	1061
45°	1076	990	845	816	822	836
55°	648	576	487	465	468	583
65°	367	304	225	149	136	366
75°	164	117	44	16	16	177
85°	25	13	3	3	3	34
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°	2249.1	2249.1	2249.1	2249.1	2249.1	2249.1	2249.1	2249.1	2249.1
2.5°	2258.6	2255.4	2252.3	2245.9	2236.4	2226.9	2220.6	2214.3	2211.2
5°	2283.9	2277.6	2268.1	2255.4	2236.4	2214.3	2201.7	2189.1	2185.9
7.5°	2318.7	2306.1	2280.8	2252.3	2220.6	2189.1	2166.9	2154.2	2144.7
10°	2334.5	2312.3	2277.6	2230.1	2182.7	2144.7	2116.2	2097.3	2091.0
12.5°	2347.2	2321.8	2271.3	2208.1	2144.7	2094.2	2062.5	2046.7	2040.3
15°	2359.8	2334.5	2264.9	2182.7	2103.7	2043.5	2008.8	1992.9	1986.6
17.5°	2359.8	2325.0	2242.8	2138.4	2043.5	1970.8	1935.9	1920.1	1917.0
20°	2331.3	2293.4	2192.2	2068.8	1961.3	1879.0	1847.4	1837.9	1831.5
22.5°	2277.6	2233.3	2119.4	1980.3	1863.2	1784.1	1749.3	1743.0	1736.6
25°	2208.1	2163.7	2034.0	1885.4	1762.0	1682.9	1654.4	1648.1	1644.9
27.5°	2119.4	2072.0	1935.9	1784.1	1651.2	1575.3	1550.0	1550.0	1546.8
30°	2005.6	1951.8	1819.0	1667.1	1534.2	1464.6	1445.6	1445.6	1442.4
32.5°	1866.4	1812.6	1692.4	1546.8	1420.4	1347.5	1331.7	1338.0	1334.9
35°	1705.1	1660.7	1550.0	1407.7	1297.0	1230.5	1224.3	1230.5	1230.5
37.5°	1543.7	1502.6	1407.7	1284.3	1179.9	1119.9	1119.9	1129.4	1126.2
40°	1376.0	1344.4	1255.8	1148.2	1062.9	1021.8	1015.5	1025.0	1028.1
42.5°	1217.9	1192.6	1116.7	1028.1	952.1	911.1	920.6	926.9	930.1
45°	1075.5	1050.2	990.1	898.4	844.6	816.2	816.2	825.7	822.5
47.5°	949.0	930.1	869.9	781.3	733.9	721.3	727.6	733.9	733.9
50°	838.2	809.8	752.8	683.3	648.4	632.7	639.1	642.1	642.1
52.5°	733.9	714.9	657.9	594.7	563.0	553.5	553.5	556.7	556.7
55°	648.4	626.4	575.7	512.5	487.1	474.5	465.0	461.8	468.1
57.5°	566.2	547.2	499.8	439.8	411.3	398.6	379.6	373.2	379.6
60°	493.5	477.6	430.3	373.2	344.7	319.5	297.4	284.7	291.0
62.5°	430.3	411.3	363.7	316.4	284.7	256.2	221.5	202.5	212.0
65°	366.9	351.1	303.7	256.2	224.6	189.8	148.6	136.1	136.1
67.5°	310.0	294.2	249.8	208.8	170.8	129.7	91.7	88.6	91.7
70°	256.2	240.5	202.5	161.3	120.2	79.1	53.7	53.7	53.7
72.5°	212.0	193.0	158.1	117.1	75.9	41.2	28.5	31.7	31.7
75°	164.5	148.6	117.1	79.1	44.3	19.0	15.8	15.8	15.8
77.5°	123.4	110.7	82.2	50.6	22.2	6.3	6.3	6.3	6.3
80°	85.4	72.7	53.7	31.7	12.7	6.3	6.3	6.3	6.3
82.5°	50.6	44.3	31.7	15.8	6.3	3.2	3.2	3.2	3.2
85°	25.3	22.2	12.7	6.3	3.2	3.2	3.2	3.2	3.2
87.5°	6.3	6.3	3.2	3.2	0.0	3.2	3.2	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P







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







(END OF REPORT)