

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: P582591

Luminaire Tested: **HC645D010-HM64560830-61WWBB**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582591
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-HM64560830-61WWBB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4174.7 lumens
Efficiency: N/A
Efficacy: 94.9 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

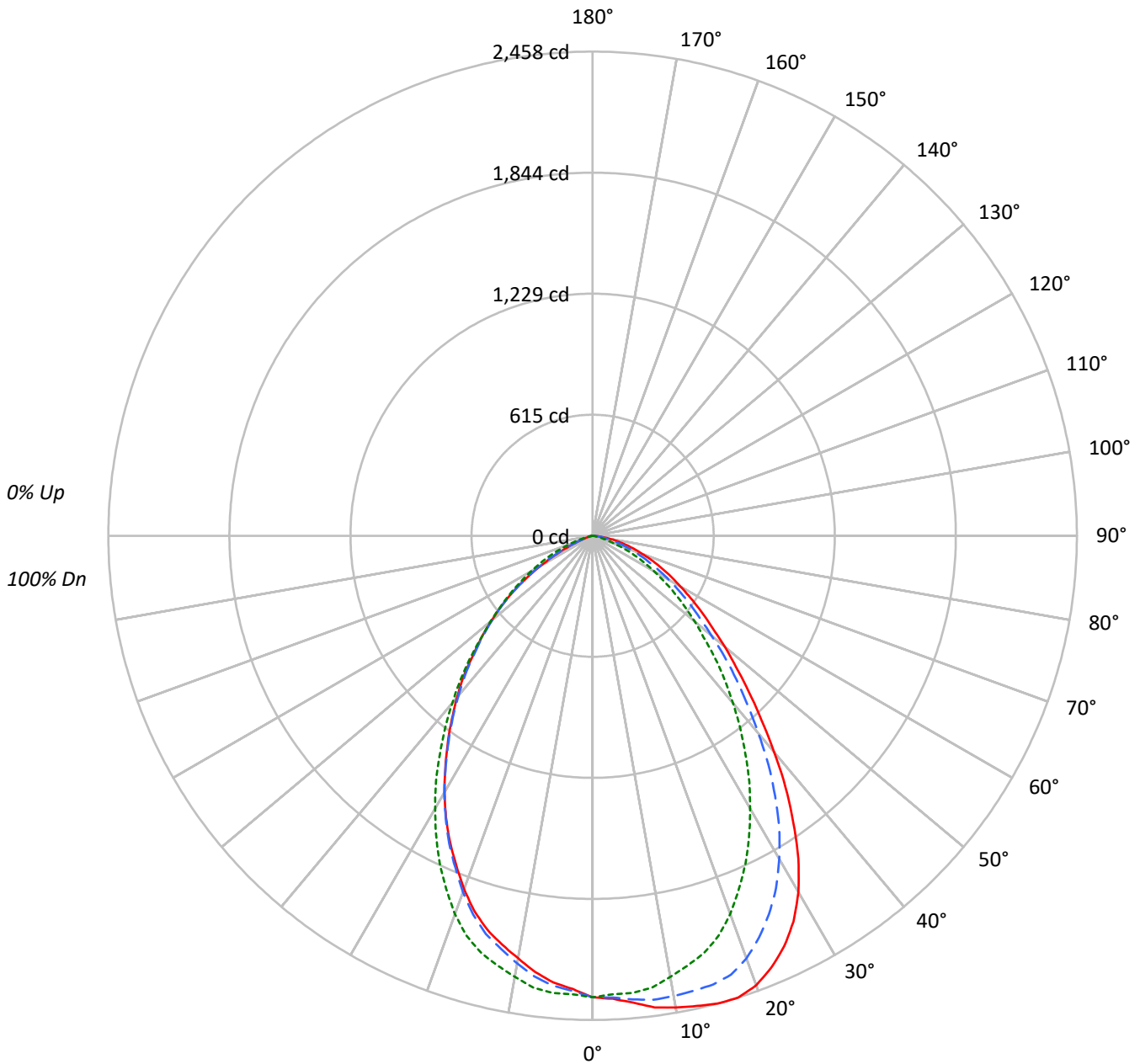
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89																			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	93	86	79	74	83	77	73	80	76	72	78	74	71	69																			
4	89	79	71	66	87	78	71	65	75	69	64	73	68	64	71	66	63	61																			
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54																			
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49																			
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44																			
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40																			
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37																			
10	60	48	40	36	58	47	40	36	46	40	36	45	40	35	45	39	35	34																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	128427	128427	128427
5°	130915	128197	125291
10°	135357	126556	121235
15°	139501	124359	117435
20°	141663	119180	111298
25°	139115	111012	103639
30°	132236	101161	95110
35°	118849	90406	85775
40°	102571	79227	76629
45°	86854	68209	66410
50°	74471	57602	57039
55°	64552	48495	46603
60°	56355	39383	33232
65°	49577	30340	18381
70°	42780	20067	8992
75°	36304	9764	3474
80°	28065	4136	2084
85°	16605	2076	2076



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.1	5.3
10°-20°	625.2	15.0
20°-30°	880.4	21.1
30°-40°	899.5	21.5
40°-50°	725.2	17.4
50°-60°	486.4	11.7
60°-70°	246.2	5.9
70°-80°	78.7	1.9
80°-90°	12.1	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°	1726.6	41.4
0°-40°	2626.1	62.9
0°-60°	3837.8	91.9
0°-90°	4174.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4174.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2343	2343	2343	2343	2343	
5°	2379	2362	2330	2293	2277	229
15°	2458	2359	2191	2092	2069	694
25°	2300	2119	1835	1723	1713	1053
35°	1776	1614	1351	1275	1282	1105
45°	1120	1031	880	850	857	871
55°	675	600	507	484	488	608
65°	382	316	234	155	142	381
75°	171	122	46	16	16	184
85°	26	13	3	3	3	35
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°	2342.7	2342.7	2342.7	2342.7	2342.7	2342.7	2342.7	2342.7	2342.7
2.5°	2352.6	2349.3	2346.0	2339.4	2329.6	2319.6	2313.0	2306.5	2303.2
5°	2379.0	2372.4	2362.4	2349.3	2329.6	2306.5	2293.3	2280.1	2276.8
7.5°	2415.2	2402.1	2375.7	2346.0	2313.0	2280.1	2257.1	2243.8	2234.0
10°	2431.6	2408.6	2372.4	2322.9	2273.5	2234.0	2204.3	2184.6	2177.9
12.5°	2444.9	2418.5	2365.8	2299.9	2234.0	2181.2	2148.3	2131.8	2125.2
15°	2458.0	2431.6	2359.1	2273.5	2191.2	2128.5	2092.3	2075.9	2069.2
17.5°	2458.0	2421.8	2336.1	2227.4	2128.5	2052.8	2016.5	2000.1	1996.7
20°	2428.3	2388.8	2283.4	2154.9	2042.9	1957.2	1924.2	1914.3	1907.8
22.5°	2372.4	2326.2	2207.6	2062.6	1940.7	1858.4	1822.1	1815.6	1808.9
25°	2299.9	2253.7	2118.7	1963.8	1835.3	1752.9	1723.3	1716.7	1713.4
27.5°	2207.6	2158.2	2016.5	1858.4	1720.0	1640.9	1614.5	1614.5	1611.2
30°	2089.0	2032.9	1894.6	1736.4	1598.1	1525.6	1505.8	1505.8	1502.5
32.5°	1944.0	1887.9	1762.8	1611.2	1479.4	1403.6	1387.2	1393.8	1390.5
35°	1775.9	1729.8	1614.5	1466.2	1350.9	1281.7	1275.2	1281.7	1281.7
37.5°	1607.9	1565.1	1466.2	1337.7	1229.1	1166.4	1166.4	1176.3	1173.0
40°	1433.3	1400.3	1308.1	1196.1	1107.1	1064.3	1057.7	1067.5	1070.8
42.5°	1268.6	1242.2	1163.1	1070.8	991.8	949.0	958.8	965.4	968.7
45°	1120.3	1093.9	1031.3	935.8	879.8	850.1	850.1	859.9	856.6
47.5°	988.5	968.7	906.1	813.8	764.4	751.2	757.9	764.4	764.4
50°	873.2	843.5	784.2	711.7	675.4	659.0	665.6	668.8	668.8
52.5°	764.4	744.6	685.4	619.5	586.5	576.6	576.6	579.9	579.9
55°	675.4	652.4	599.6	533.8	507.4	494.2	484.3	481.0	487.6
57.5°	589.8	570.1	520.6	457.9	428.4	415.1	395.4	388.8	395.4
60°	514.0	497.6	448.1	388.8	359.2	332.8	309.7	296.5	303.1
62.5°	448.1	428.4	378.9	329.5	296.5	266.9	230.6	210.9	220.8
65°	382.2	365.7	316.4	266.9	233.9	197.7	154.8	141.7	141.7
67.5°	322.9	306.4	260.3	217.5	177.9	135.1	95.6	92.3	95.6
70°	266.9	250.4	210.9	168.1	125.2	82.3	56.1	56.1	56.1
72.5°	220.8	200.9	164.7	121.9	79.1	42.8	29.7	33.0	33.0
75°	171.4	154.8	121.9	82.3	46.1	19.8	16.4	16.4	16.4
77.5°	128.6	115.3	85.6	52.7	23.1	6.6	6.6	6.6	6.6
80°	88.9	75.8	56.1	33.0	13.1	6.6	6.6	6.6	6.6
82.5°	52.7	46.1	33.0	16.4	6.6	3.3	3.3	3.3	3.3
85°	26.4	23.1	13.1	6.6	3.3	3.3	3.3	3.3	3.3
87.5°	6.6	6.6	3.3	3.3	0.0	3.3	3.3	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)