

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: P582611

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

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582611
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560835-61WWWB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4933.6 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

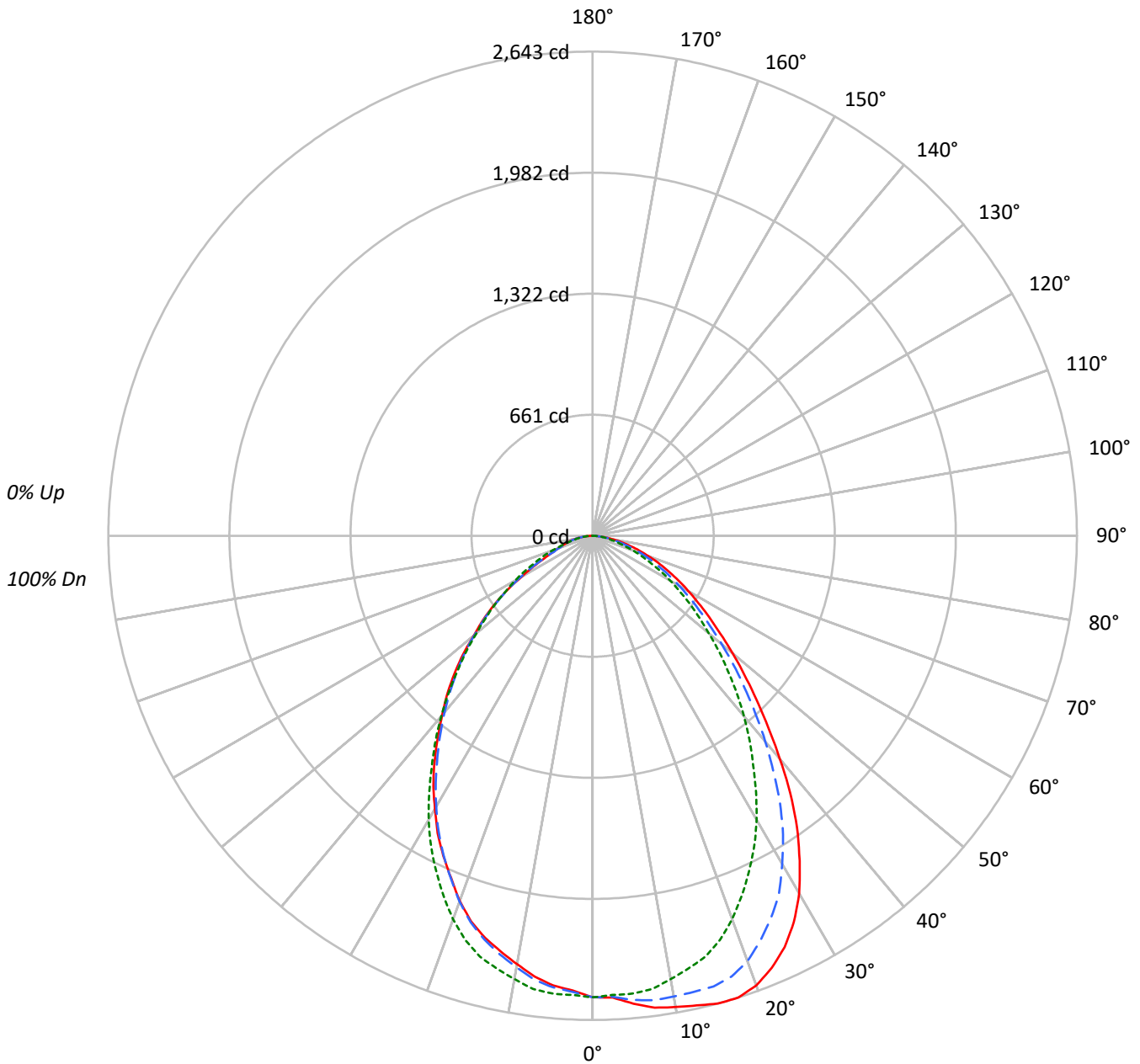
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58																			
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52																			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	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	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	138108	138108	138108
5°	141101	138064	135604
10°	145410	136788	132190
15°	150007	134967	128917
20°	152392	129902	123683
25°	149888	122203	116583
30°	142699	113283	108928
35°	130132	102265	100652
40°	113785	91865	91371
45°	97925	80846	82722
50°	85123	70445	71912
55°	74339	61838	62497
60°	66036	53581	49053
65°	58930	45089	37501
70°	51852	36961	31432
75°	44480	29166	29886
80°	35832	25003	29328
85°	23839	21637	25977



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.5	4.8
10°-20°	679.0	13.8
20°-30°	969.4	19.6
30°-40°	1015.4	20.6
40°-50°	854.9	17.3
50°-60°	608.5	12.3
60°-70°	356.1	7.2
70°-80°	168.5	3.4
80°-90°	43.3	0.9
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°	1886.9	38.2
0°-40°	2902.3	58.8
0°-60°	4365.6	88.5
0°-90°	4933.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4933.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2519	2519	2519	2519	2519	
5°	2564	2543	2509	2475	2464	246
15°	2643	2547	2378	2282	2272	746
25°	2478	2302	2020	1924	1927	1134
35°	1944	1783	1528	1476	1504	1208
45°	1263	1170	1043	1046	1067	981
55°	778	712	647	647	654	701
65°	454	403	348	292	289	453
75°	210	176	138	134	141	225
85°	38	31	34	41	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°	2519.3	2519.3	2519.3	2519.3	2519.3	2519.3	2519.3	2519.3	2519.3
2.5°	2522.7	2522.7	2519.3	2515.9	2508.9	2498.6	2491.7	2484.9	2484.9
5°	2564.1	2557.1	2543.4	2526.2	2508.9	2488.3	2474.6	2464.2	2464.2
7.5°	2598.4	2584.7	2557.1	2526.2	2495.2	2467.6	2443.6	2429.8	2426.4
10°	2612.2	2595.0	2553.7	2505.5	2457.3	2419.4	2392.0	2374.7	2374.7
12.5°	2626.0	2605.4	2550.2	2481.4	2419.4	2367.8	2340.3	2326.5	2323.1
15°	2643.1	2615.7	2546.8	2460.7	2378.1	2319.6	2281.8	2271.5	2271.5
17.5°	2643.1	2608.8	2522.7	2416.0	2312.8	2247.4	2213.0	2202.7	2206.1
20°	2612.2	2574.4	2471.0	2340.3	2226.7	2157.9	2123.5	2116.6	2120.1
22.5°	2553.7	2508.9	2392.0	2250.9	2126.9	2054.6	2023.7	2023.7	2020.3
25°	2478.0	2429.8	2302.5	2154.4	2020.3	1948.0	1923.8	1927.4	1927.4
27.5°	2378.1	2329.9	2202.7	2044.3	1910.1	1837.9	1820.6	1827.5	1830.9
30°	2254.3	2202.7	2068.5	1913.5	1789.6	1717.4	1707.1	1717.4	1720.8
32.5°	2102.8	2064.9	1934.2	1775.9	1658.9	1596.9	1593.5	1603.8	1617.6
35°	1944.5	1903.2	1782.7	1638.2	1528.1	1476.5	1476.5	1493.7	1504.0
37.5°	1772.4	1731.1	1621.0	1500.5	1407.6	1359.4	1366.3	1383.6	1387.0
40°	1590.0	1559.0	1466.1	1362.9	1283.7	1245.8	1256.2	1273.4	1276.8
42.5°	1417.9	1390.5	1314.7	1221.8	1163.3	1135.7	1149.5	1170.2	1177.0
45°	1263.1	1232.1	1170.2	1091.0	1042.8	1029.1	1046.2	1060.0	1067.0
47.5°	1122.0	1094.4	1042.8	970.5	936.2	929.3	946.5	953.3	960.2
50°	998.1	970.5	918.9	853.5	826.0	826.0	839.8	846.7	843.2
52.5°	877.6	853.5	805.4	750.3	733.1	733.1	743.4	746.8	753.8
55°	777.8	753.8	712.4	660.8	647.0	640.1	647.0	647.0	653.9
57.5°	684.9	664.3	626.4	578.2	560.9	554.1	550.6	547.2	554.1
60°	602.3	585.1	543.8	502.5	488.7	471.5	457.7	444.0	447.4
62.5°	526.6	509.3	471.5	430.3	416.4	392.4	375.1	357.9	364.8
65°	454.3	437.1	402.7	368.2	347.6	320.1	292.5	282.2	289.1
67.5°	388.8	375.1	340.8	306.3	289.1	258.2	230.6	230.6	234.0
70°	323.5	309.8	282.2	251.3	230.6	203.0	192.7	196.1	196.1
72.5°	265.0	254.7	227.1	199.6	179.0	161.8	161.8	165.2	168.7
75°	210.0	203.0	175.5	151.4	137.7	127.4	134.2	137.7	141.1
77.5°	161.8	151.4	130.8	113.5	103.2	106.7	113.5	117.1	120.5
80°	113.5	110.1	92.9	82.6	79.2	82.6	89.5	92.9	92.9
82.5°	72.3	68.9	58.5	55.0	55.0	58.5	65.3	65.3	65.3
85°	37.9	34.4	31.0	31.0	34.4	37.9	41.3	41.3	41.3
87.5°	13.7	10.3	13.7	13.7	17.2	17.2	17.2	17.2	17.2
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)