

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: P582825

Luminaire Tested: **HC650D010-HM64560935-61WWBB**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582825
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: HC650D010-HM64560935-61WWBB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4111.9 lumens
Efficiency: N/A
Efficacy: 85.7 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

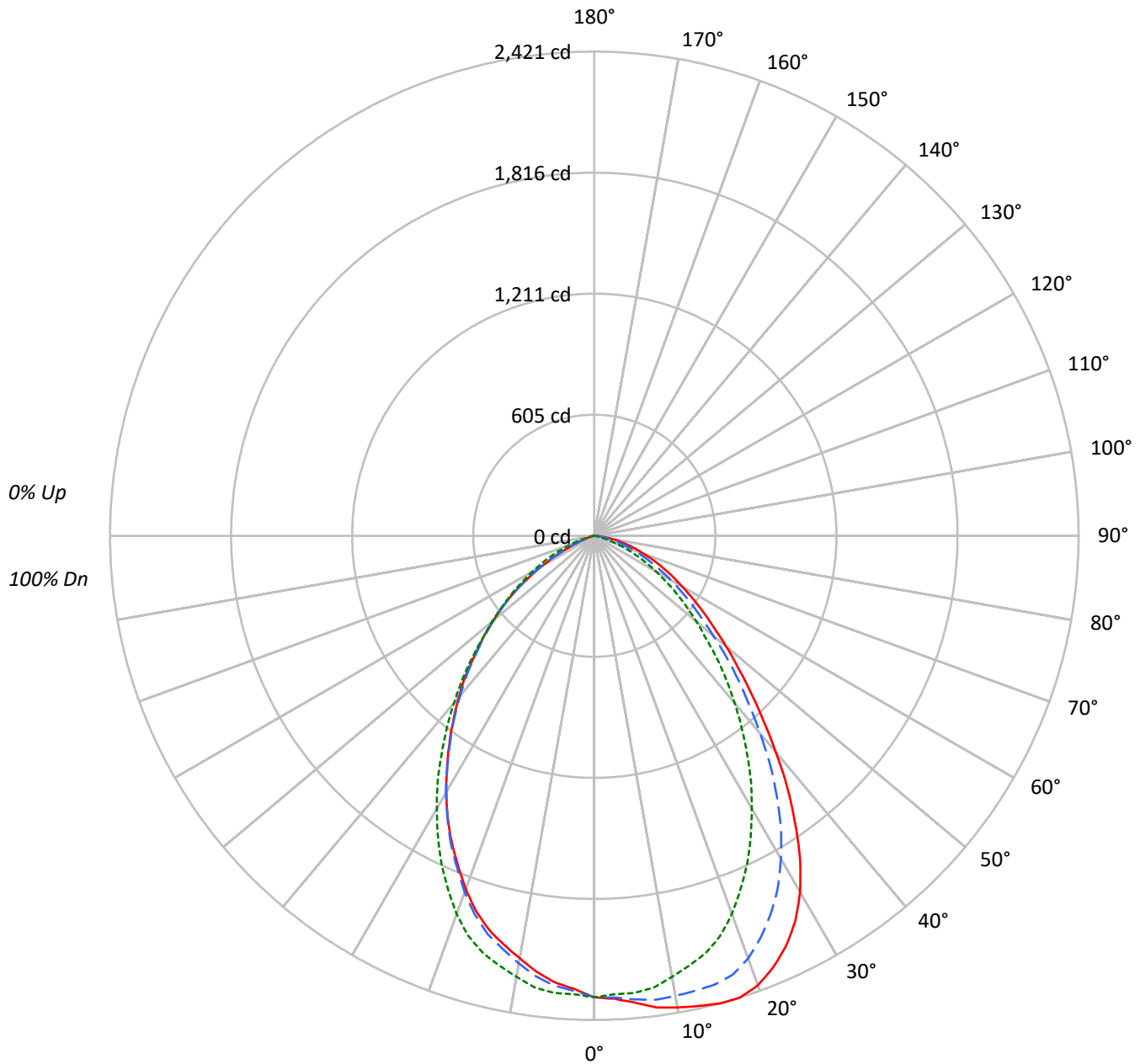
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	126492	126492	126492
5°	128940	126260	123404
10°	133325	124653	119414
15°	137401	122487	115670
20°	139540	117383	109624
25°	137022	109337	102072
30°	130242	99636	93679
35°	117069	89048	84490
40°	101032	78032	75484
45°	85544	67178	65418
50°	73345	56740	56186
55°	63587	47769	45905
60°	55511	38780	32739
65°	48838	29886	18108
70°	42139	19763	8848
75°	35753	9637	3431
80°	27655	4104	2052
85°	16354	2013	2013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.7	5.3
10°-20°	615.8	15.0
20°-30°	867.1	21.1
30°-40°	886.0	21.5
40°-50°	714.3	17.4
50°-60°	479.1	11.7
60°-70°	242.5	5.9
70°-80°	77.5	1.9
80°-90°	11.9	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°	1700.6	41.4
0°-40°	2586.6	62.9
0°-60°	3780.0	91.9
0°-90°	4111.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4111.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2307	2307	2307	2307	2307	
5°	2343	2327	2294	2259	2242	226
15°	2421	2324	2158	2061	2038	684
25°	2265	2087	1808	1697	1688	1037
35°	1749	1590	1331	1256	1262	1089
45°	1103	1016	866	837	844	858
55°	665	591	500	477	480	599
65°	376	312	230	153	140	376
75°	169	120	46	16	16	181
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°	2307.4	2307.4	2307.4	2307.4	2307.4	2307.4	2307.4	2307.4	2307.4
2.5°	2317.2	2313.9	2310.7	2304.2	2294.4	2284.8	2278.3	2271.8	2268.5
5°	2343.1	2336.6	2326.9	2313.9	2294.4	2271.8	2258.8	2245.8	2242.5
7.5°	2378.9	2365.9	2339.9	2310.7	2278.3	2245.8	2223.1	2210.1	2200.3
10°	2395.1	2372.4	2336.6	2288.0	2239.3	2200.3	2171.2	2151.7	2145.2
12.5°	2408.1	2382.1	2330.1	2265.3	2200.3	2148.5	2116.0	2099.7	2093.2
15°	2421.0	2395.1	2323.6	2239.3	2158.2	2096.5	2060.8	2044.5	2038.1
17.5°	2421.0	2385.4	2300.9	2193.8	2096.5	2021.9	1986.2	1969.9	1966.7
20°	2391.9	2352.9	2249.0	2122.5	2012.1	1927.7	1895.3	1885.6	1879.1
22.5°	2336.6	2291.3	2174.3	2031.6	1911.6	1830.4	1794.6	1788.2	1781.7
25°	2265.3	2219.8	2086.7	1934.2	1807.6	1726.5	1697.3	1690.8	1687.5
27.5°	2174.3	2125.7	1986.2	1830.4	1694.0	1616.2	1590.2	1590.2	1587.0
30°	2057.5	2002.4	1866.1	1710.3	1574.0	1502.6	1483.1	1483.1	1479.9
32.5°	1914.8	1859.6	1736.3	1587.0	1457.1	1382.5	1366.3	1372.8	1369.5
35°	1749.3	1703.8	1590.2	1444.1	1330.6	1262.5	1256.0	1262.5	1262.5
37.5°	1583.7	1541.6	1444.1	1317.6	1210.5	1148.9	1148.9	1158.6	1155.4
40°	1411.8	1379.3	1288.4	1178.0	1090.4	1048.3	1041.8	1051.4	1054.8
42.5°	1249.5	1223.5	1145.6	1054.8	976.8	934.6	944.4	950.9	954.1
45°	1103.4	1077.4	1015.8	921.7	866.5	837.3	837.3	847.0	843.8
47.5°	973.6	954.1	892.5	801.5	752.9	739.9	746.4	752.9	752.9
50°	860.0	830.8	772.4	701.0	665.3	649.1	655.6	658.8	658.8
52.5°	752.9	733.4	675.1	610.1	577.6	567.9	567.9	571.1	571.1
55°	665.3	642.6	590.6	525.8	499.8	486.8	477.1	473.8	480.3
57.5°	580.9	561.4	512.8	451.1	421.9	408.9	389.5	383.0	389.5
60°	506.3	490.0	441.3	383.0	353.7	327.7	305.1	292.1	298.6
62.5°	441.3	421.9	373.2	324.5	292.1	262.9	227.2	207.7	217.4
65°	376.5	360.2	311.5	262.9	230.4	194.7	152.6	139.6	139.6
67.5°	318.0	301.9	256.4	214.2	175.3	133.1	94.1	90.8	94.1
70°	262.9	246.6	207.7	165.5	123.3	81.1	55.2	55.2	55.2
72.5°	217.4	197.9	162.3	120.1	77.9	42.2	29.2	32.5	32.5
75°	168.8	152.6	120.1	81.1	45.5	19.5	16.2	16.2	16.2
77.5°	126.6	113.6	84.3	52.0	22.7	6.5	6.5	6.5	6.5
80°	87.6	74.6	55.2	32.5	13.0	6.5	6.5	6.5	6.5
82.5°	52.0	45.5	32.5	16.2	6.5	3.2	3.2	3.2	3.2
85°	26.0	22.7	13.0	6.5	3.2	3.2	3.2	3.2	3.2
87.5°	6.5	6.5	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



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— 0°-180° - - 45°-225° - - - 90°-270°







(END OF REPORT)