

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: P582807

Luminaire Tested: **HC650D010-HM64560930-61WWBB**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582807
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-HM64560930-61WWBB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4064.2 lumens
Efficiency: N/A
Efficacy: 84.7 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

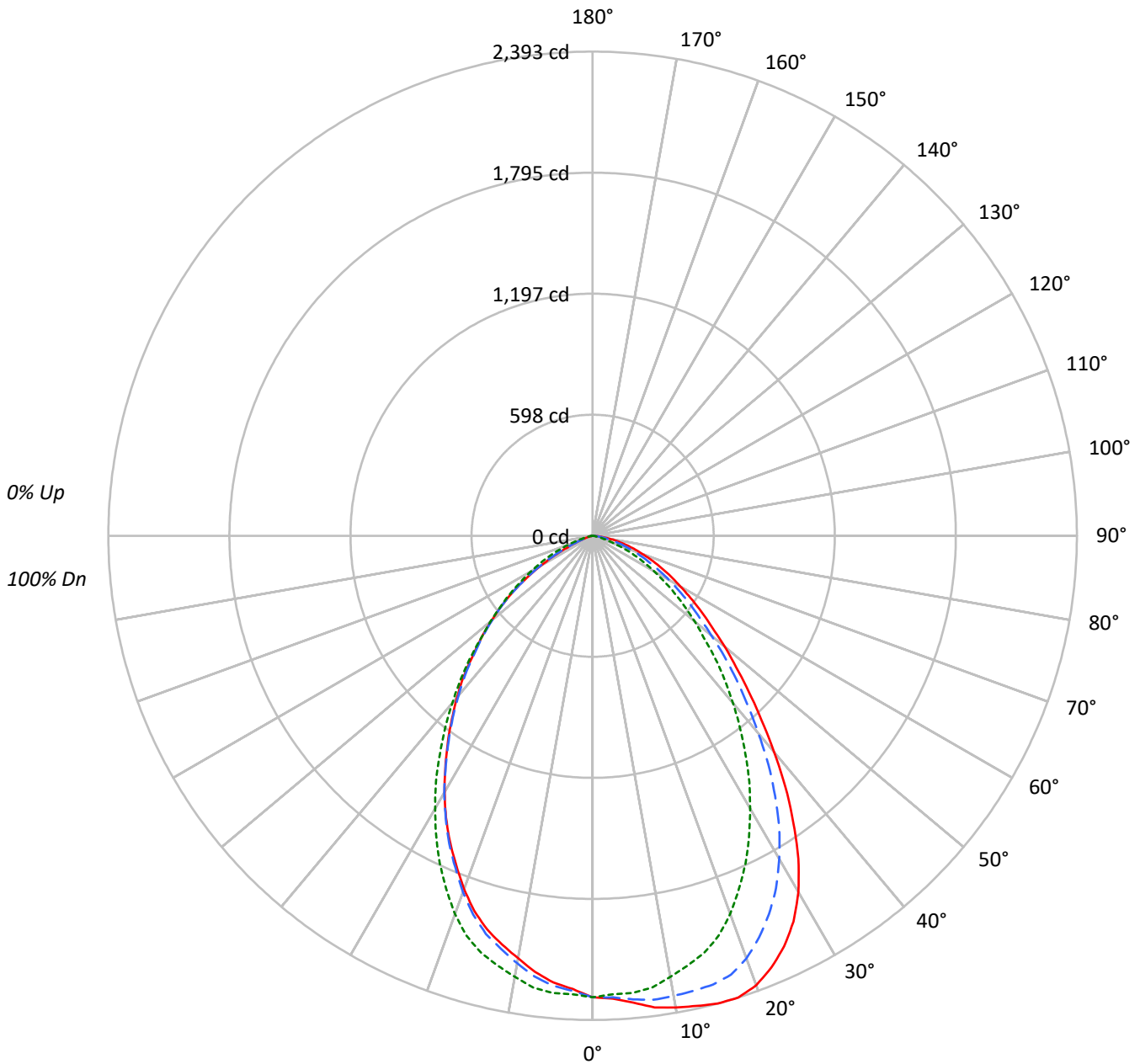
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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°	125023	125023	125023
5°	127443	124802	121973
10°	131778	123205	118023
15°	135807	121062	114325
20°	137912	116023	108346
25°	135425	108067	100893
30°	128735	98477	92590
35°	115710	88017	83500
40°	99859	77130	74604
45°	84559	66402	64658
50°	72501	56083	55538
55°	62851	47215	45380
60°	54864	38341	32355
65°	48267	29536	17888
70°	41642	19539	8751
75°	35330	9510	3410
80°	27339	4072	2020
85°	16102	2013	2013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.2	5.3
10°-20°	608.6	15.0
20°-30°	857.1	21.1
30°-40°	875.7	21.5
40°-50°	706.0	17.4
50°-60°	473.5	11.7
60°-70°	239.6	5.9
70°-80°	76.6	1.9
80°-90°	11.8	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°	1680.9	41.4
0°-40°	2556.6	62.9
0°-60°	3736.1	91.9
0°-90°	4064.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4064.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2281	2281	2281	2281	2281	
5°	2316	2300	2268	2233	2216	223
15°	2393	2297	2133	2037	2014	676
25°	2239	2062	1787	1678	1668	1025
35°	1729	1572	1315	1241	1248	1076
45°	1091	1004	856	828	834	848
55°	658	584	494	472	475	592
65°	372	308	228	151	138	371
75°	167	119	45	16	16	179
85°	26	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°	2280.6	2280.6	2280.6	2280.6	2280.6	2280.6	2280.6	2280.6	2280.6
2.5°	2290.3	2287.1	2283.8	2277.4	2267.9	2258.2	2251.8	2245.3	2242.1
5°	2315.9	2309.6	2299.9	2287.1	2267.9	2245.3	2232.6	2219.7	2216.5
7.5°	2351.3	2338.4	2312.8	2283.8	2251.8	2219.7	2197.3	2184.4	2174.8
10°	2367.3	2344.8	2309.6	2261.4	2213.3	2174.8	2145.9	2126.6	2120.2
12.5°	2380.1	2354.4	2303.1	2238.9	2174.8	2123.4	2091.4	2075.4	2069.0
15°	2392.9	2367.3	2296.7	2213.3	2133.1	2072.2	2036.9	2020.8	2014.4
17.5°	2392.9	2357.6	2274.3	2168.4	2072.2	1998.4	1963.1	1947.0	1943.8
20°	2364.0	2325.5	2222.9	2097.8	1988.8	1905.3	1873.3	1863.6	1857.2
22.5°	2309.6	2264.6	2149.2	2008.1	1889.4	1809.2	1773.9	1767.4	1761.0
25°	2238.9	2194.1	2062.5	1911.8	1786.6	1706.4	1677.6	1671.2	1668.0
27.5°	2149.2	2101.0	1963.1	1809.2	1674.4	1597.4	1571.8	1571.8	1568.6
30°	2033.7	1979.1	1844.4	1690.5	1555.7	1485.1	1465.9	1465.9	1462.7
32.5°	1892.6	1838.0	1716.1	1568.6	1440.2	1366.4	1350.5	1356.9	1353.7
35°	1729.0	1684.0	1571.8	1427.4	1315.2	1247.7	1241.3	1247.7	1247.7
37.5°	1565.3	1523.6	1427.4	1302.3	1196.5	1135.5	1135.5	1145.1	1141.9
40°	1395.4	1363.2	1273.5	1164.3	1077.8	1036.1	1029.7	1039.3	1042.5
42.5°	1235.0	1209.3	1132.3	1042.5	965.5	923.8	933.5	939.8	943.0
45°	1090.7	1064.9	1004.0	911.0	856.5	827.5	827.5	837.2	834.0
47.5°	962.3	943.0	882.1	792.3	744.1	731.4	737.8	744.1	744.1
50°	850.1	821.1	763.4	692.9	657.6	641.5	647.9	651.2	651.2
52.5°	744.1	724.9	667.1	603.0	571.0	561.3	561.3	564.5	564.5
55°	657.6	635.1	583.8	519.6	494.0	481.1	471.6	468.3	474.8
57.5°	574.2	555.0	506.8	445.8	417.0	404.1	384.9	378.5	384.9
60°	500.4	484.3	436.3	378.5	349.7	323.9	301.5	288.6	295.1
62.5°	436.3	417.0	368.8	320.8	288.6	259.8	224.5	205.3	214.9
65°	372.1	356.1	307.9	259.8	227.7	192.5	150.8	137.9	137.9
67.5°	314.4	298.3	253.4	211.8	173.3	131.6	93.1	89.8	93.1
70°	259.8	243.8	205.3	163.6	121.9	80.2	54.6	54.6	54.6
72.5°	214.9	195.7	160.4	118.7	77.0	41.7	28.8	32.1	32.1
75°	166.8	150.8	118.7	80.2	44.9	19.3	16.1	16.1	16.1
77.5°	125.1	112.3	83.4	51.4	22.4	6.4	6.4	6.4	6.4
80°	86.6	73.8	54.6	32.1	12.9	6.4	6.4	6.4	6.4
82.5°	51.4	44.9	32.1	16.1	6.4	3.2	3.2	3.2	3.2
85°	25.6	22.4	12.9	6.4	3.2	3.2	3.2	3.2	3.2
87.5°	6.4	6.4	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)