

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: P593374

Luminaire Tested: **HC650D010-HM64560950-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593374
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC650D010-HM64560950-61WWW
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4633.4 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.06 / 1.14
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

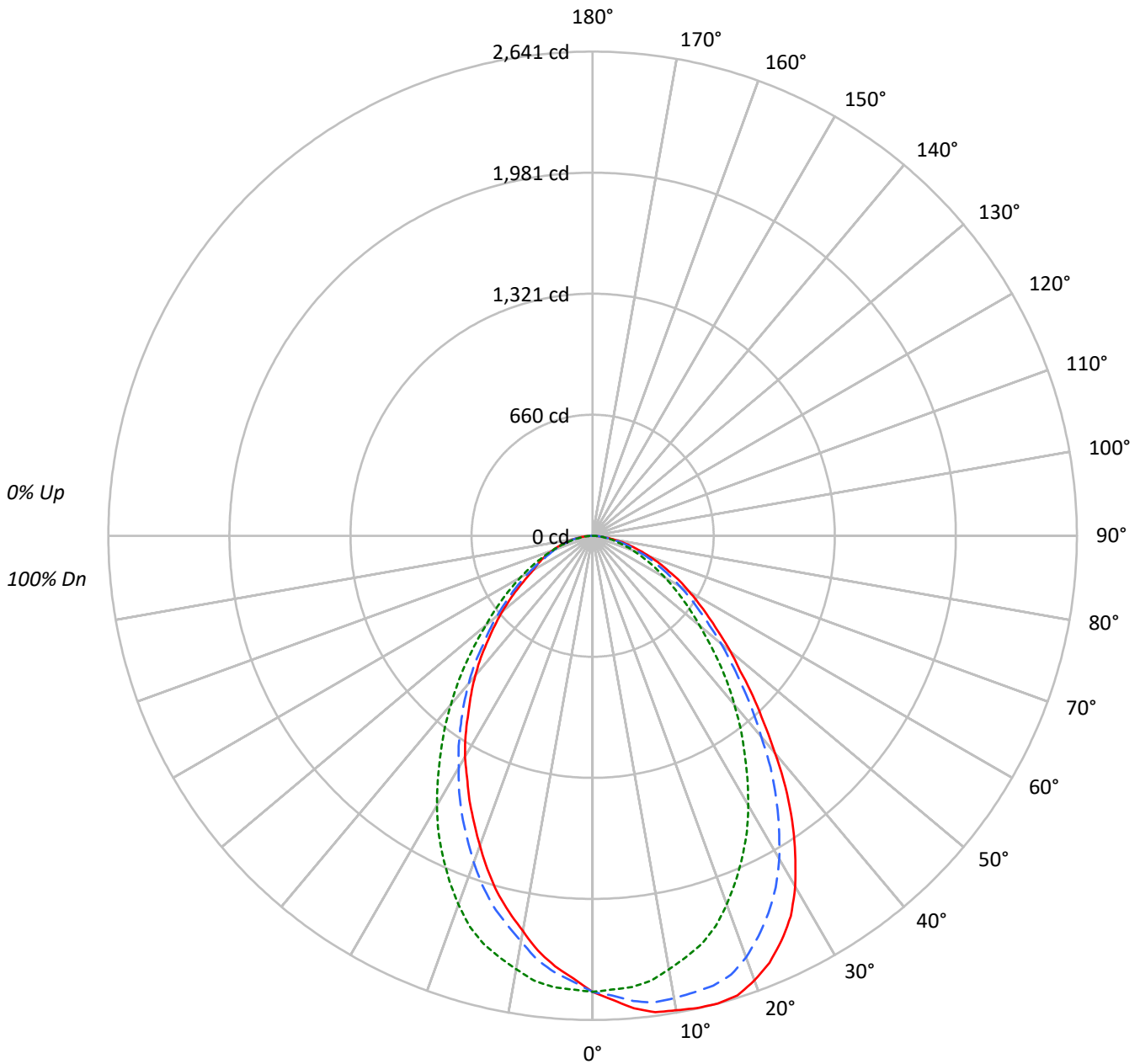
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P593374

CATALOG NUMBER: HC650D010-HM64560950-61WWW

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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76																			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58																			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51																			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	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	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	136360	136360	136360
5°	142406	135962	129694
10°	146290	133620	121880
15°	149904	130716	114189
20°	150577	124792	104875
25°	147414	116837	96187
30°	139863	107441	88153
35°	127033	96557	79083
40°	110679	86004	71155
45°	95770	75271	62557
50°	83656	64817	54821
55°	73909	56954	47033
60°	66442	49919	40731
65°	59488	43429	39524
70°	53118	37025	37025
75°	46111	31199	34737
80°	37000	26424	31696
85°	25285	23147	27424



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.8	5.0
10°-20°	649.8	14.0
20°-30°	905.6	19.5
30°-40°	933.1	20.1
40°-50°	773.4	16.7
50°-60°	555.8	12.0
60°-70°	353.9	7.6
70°-80°	181.8	3.9
80°-90°	46.2	1.0
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°	1789.2	38.6
0°-40°	2722.4	58.8
0°-60°	4051.5	87.4
0°-90°	4633.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4633.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2487	2487	2487	2487	2487	
5°	2588	2548	2471	2390	2357	248
15°	2641	2541	2303	2092	2012	744
25°	2437	2270	1932	1684	1590	1117
35°	1898	1744	1443	1252	1182	1179
45°	1235	1148	971	847	807	956
55°	773	710	596	529	492	697
65°	459	408	335	291	305	459
75°	218	187	147	154	164	232
85°	40	37	37	40	44	51
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°	2487.4	2487.4	2487.4	2487.4	2487.4	2487.4	2487.4	2487.4	2487.4
2.5°	2534.2	2524.2	2510.8	2497.5	2477.3	2453.9	2433.8	2427.1	2417.0
5°	2587.8	2574.5	2547.7	2514.1	2470.7	2427.1	2390.2	2366.8	2356.8
7.5°	2621.2	2604.6	2567.7	2510.8	2447.2	2383.6	2330.0	2296.6	2283.1
10°	2628.0	2611.2	2561.0	2484.0	2400.4	2313.3	2246.4	2206.1	2189.5
12.5°	2638.0	2614.6	2551.0	2460.6	2353.5	2253.0	2169.4	2119.1	2102.4
15°	2641.3	2614.6	2540.9	2430.5	2303.2	2182.7	2092.4	2032.0	2012.0
17.5°	2628.0	2597.8	2510.8	2376.9	2232.9	2105.7	1998.6	1935.0	1908.3
20°	2581.1	2547.7	2447.2	2296.6	2139.1	2005.3	1894.8	1827.8	1797.7
22.5°	2520.8	2477.3	2363.5	2202.8	2038.8	1898.2	1787.7	1720.7	1690.6
25°	2437.1	2397.0	2269.8	2099.0	1931.6	1784.4	1683.9	1613.6	1590.2
27.5°	2340.0	2293.1	2162.6	1991.9	1821.2	1673.8	1576.8	1513.2	1483.1
30°	2209.5	2166.0	2035.5	1864.7	1697.3	1560.1	1459.6	1406.1	1392.6
32.5°	2055.5	2018.7	1891.5	1730.8	1570.1	1442.8	1359.2	1302.3	1288.8
35°	1898.2	1854.6	1744.2	1593.5	1442.8	1329.1	1252.1	1201.8	1181.7
37.5°	1727.4	1687.3	1593.5	1459.6	1325.7	1218.6	1151.6	1108.1	1088.1
40°	1546.6	1516.5	1429.5	1322.4	1201.8	1108.1	1051.2	1014.4	994.3
42.5°	1379.3	1349.2	1288.8	1188.4	1088.1	1004.3	954.1	920.6	903.9
45°	1235.3	1208.5	1148.3	1061.2	970.9	900.5	847.0	823.5	806.9
47.5°	1091.4	1078.0	1024.4	944.1	860.4	800.1	763.3	736.5	723.1
50°	980.9	964.2	914.0	830.2	760.0	713.1	679.5	656.2	642.8
52.5°	867.1	850.3	803.4	733.2	676.2	632.8	599.2	579.2	565.8
55°	773.3	760.0	709.7	646.1	595.9	559.1	529.0	505.5	492.1
57.5°	686.3	672.9	626.0	565.8	522.2	488.8	462.0	441.9	425.2
60°	606.0	595.9	549.0	492.1	455.3	421.9	398.4	381.7	371.5
62.5°	535.6	515.5	475.4	425.2	391.7	364.9	341.4	331.4	338.1
65°	458.6	448.5	408.4	364.9	334.8	308.0	291.2	298.0	304.7
67.5°	395.0	381.7	348.2	308.0	281.2	261.1	251.1	264.4	267.9
70°	331.4	318.0	287.9	254.4	231.0	217.7	217.7	227.7	231.0
72.5°	271.2	261.1	234.3	207.5	190.8	180.8	187.4	194.2	197.5
75°	217.7	207.5	187.4	164.0	147.3	147.3	154.0	160.7	164.0
77.5°	167.3	160.7	140.7	123.9	117.2	117.2	123.9	127.2	130.6
80°	117.2	110.4	100.4	90.3	83.7	90.3	97.1	97.1	100.4
82.5°	77.0	73.7	67.0	60.2	60.2	63.7	67.0	70.3	70.3
85°	40.2	40.2	36.8	33.4	36.8	40.2	40.2	43.6	43.6
87.5°	13.3	13.3	13.3	13.3	16.8	16.8	16.8	16.8	16.8
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)