

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: P593356

Luminaire Tested: **HC650D010-HM64560850-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593356
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-HM64560850-61WWW
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5251.4 lumens
Efficiency: N/A
Efficacy: 109.4 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

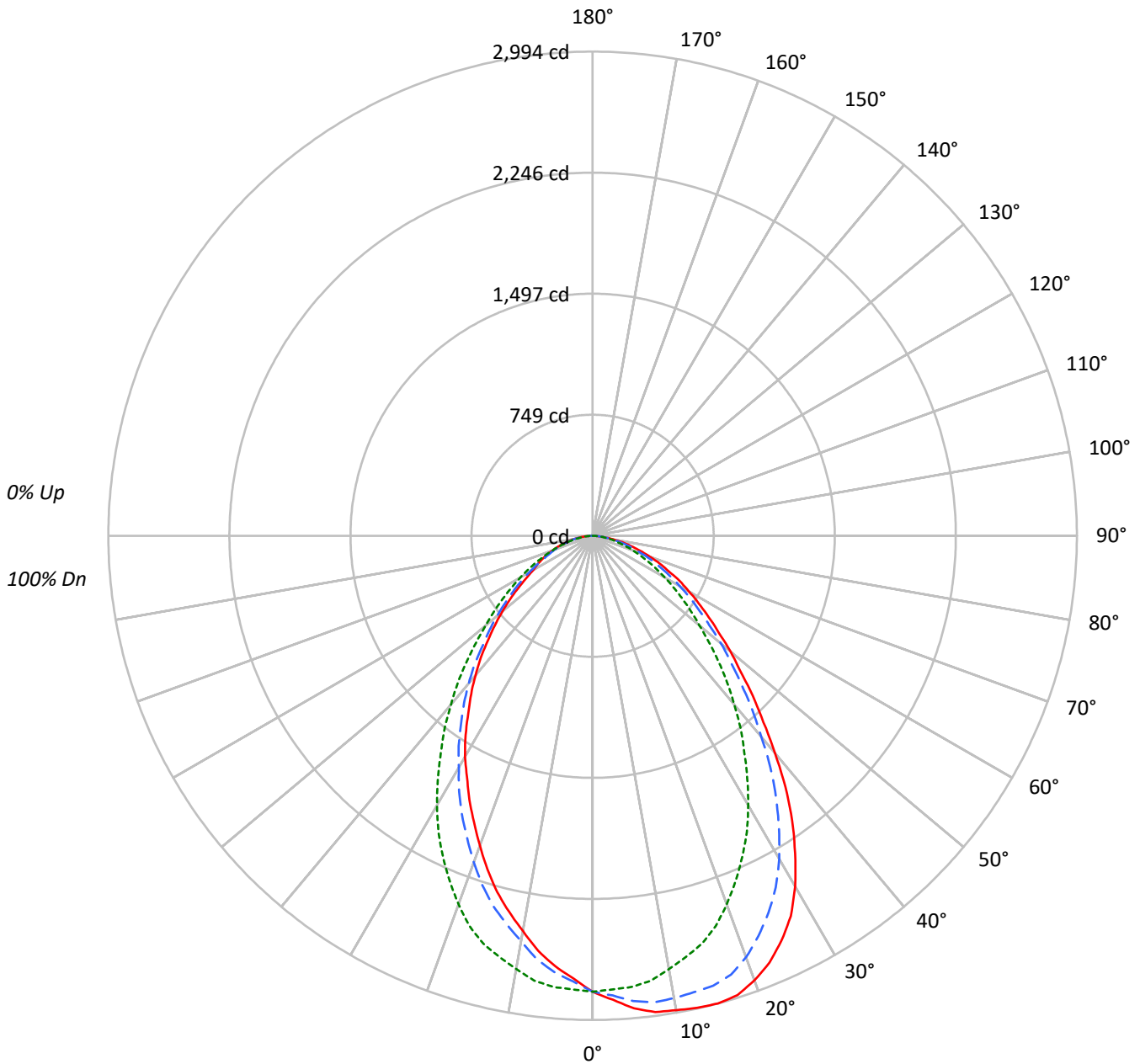
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					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°	154549	154549	154549
5°	161402	154094	146995
10°	165801	151433	138129
15°	169904	148156	129422
20°	170657	141447	118865
25°	167078	132425	109016
30°	158518	121772	99914
35°	143972	109439	89637
40°	125449	97483	80644
45°	108546	85303	70891
50°	94811	73456	62122
55°	83763	64552	53312
60°	75301	56574	46170
65°	67426	49227	44791
70°	60218	41962	41962
75°	52232	35372	39375
80°	41893	29928	35926
85°	28682	26229	31072



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.0	5.0
10°-20°	736.5	14.0
20°-30°	1026.4	19.5
30°-40°	1057.6	20.1
40°-50°	876.5	16.7
50°-60°	629.9	12.0
60°-70°	401.2	7.6
70°-80°	206.0	3.9
80°-90°	52.4	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°	2027.9	38.6
0°-40°	3085.5	58.8
0°-60°	4591.9	87.4
0°-90°	5251.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5251.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2819	2819	2819	2819	2819	
5°	2933	2887	2800	2709	2671	281
15°	2994	2880	2610	2371	2280	844
25°	2762	2572	2189	1908	1802	1266
35°	2151	1977	1635	1419	1339	1336
45°	1400	1302	1100	960	914	1084
55°	876	804	675	600	558	790
65°	520	463	380	330	345	521
75°	247	212	167	175	186	263
85°	46	42	42	46	49	58
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°	2819.2	2819.2	2819.2	2819.2	2819.2	2819.2	2819.2	2819.2	2819.2
2.5°	2872.3	2860.9	2845.7	2830.5	2807.7	2781.1	2758.5	2750.8	2739.4
5°	2933.0	2917.8	2887.4	2849.5	2800.2	2750.8	2709.1	2682.5	2671.2
7.5°	2970.9	2951.9	2910.2	2845.7	2773.6	2701.5	2640.8	2602.8	2587.7
10°	2978.5	2959.5	2902.7	2815.4	2720.4	2621.8	2546.0	2500.4	2481.4
12.5°	2989.9	2963.4	2891.2	2788.8	2667.4	2553.6	2458.7	2401.8	2382.8
15°	2993.7	2963.4	2879.9	2754.7	2610.5	2473.8	2371.4	2303.1	2280.4
17.5°	2978.5	2944.4	2845.7	2694.0	2530.8	2386.6	2265.2	2193.1	2162.8
20°	2925.3	2887.4	2773.6	2602.8	2424.6	2272.7	2147.5	2071.7	2037.5
22.5°	2857.1	2807.7	2678.7	2496.6	2310.7	2151.3	2026.1	1950.3	1916.1
25°	2762.2	2716.7	2572.5	2379.0	2189.3	2022.3	1908.5	1828.8	1802.3
27.5°	2652.2	2599.0	2451.0	2257.6	2064.0	1897.2	1787.1	1715.0	1680.9
30°	2504.2	2454.9	2307.0	2113.4	1923.7	1768.1	1654.3	1593.6	1578.4
32.5°	2329.6	2288.0	2143.8	1961.6	1779.5	1635.3	1540.5	1476.0	1460.8
35°	2151.3	2102.1	1976.8	1806.1	1635.3	1506.4	1419.1	1362.2	1339.4
37.5°	1957.9	1912.3	1806.1	1654.3	1502.6	1381.1	1305.2	1255.9	1233.1
40°	1753.0	1718.8	1620.1	1498.7	1362.2	1255.9	1191.4	1149.7	1126.9
42.5°	1563.3	1529.0	1460.8	1346.9	1233.1	1138.2	1081.3	1043.4	1024.4
45°	1400.1	1369.7	1301.5	1202.7	1100.3	1020.6	959.9	933.3	914.4
47.5°	1237.0	1221.7	1161.0	1070.0	975.2	906.8	865.1	834.7	819.6
50°	1111.7	1092.8	1035.9	941.0	861.3	808.2	770.2	743.7	728.4
52.5°	982.7	963.7	910.7	831.0	766.5	717.1	679.2	656.4	641.3
55°	876.4	861.3	804.4	732.3	675.4	633.6	599.5	572.9	557.8
57.5°	777.8	762.7	709.5	641.3	591.9	554.0	523.7	500.9	481.8
60°	686.8	675.4	622.3	557.8	516.0	478.1	451.5	432.6	421.1
62.5°	607.0	584.4	538.8	481.8	443.9	413.6	387.0	375.7	383.2
65°	519.8	508.4	463.0	413.6	379.5	349.1	330.1	337.6	345.3
67.5°	447.7	432.6	394.6	349.1	318.8	296.0	284.6	299.7	303.5
70°	375.7	360.4	326.3	288.4	261.8	246.6	246.6	258.0	261.8
72.5°	307.3	296.0	265.6	235.3	216.2	204.9	212.5	220.0	223.9
75°	246.6	235.3	212.5	185.9	167.0	167.0	174.6	182.1	185.9
77.5°	189.7	182.1	159.3	140.4	132.7	132.7	140.4	144.2	148.0
80°	132.7	125.2	113.8	102.4	94.8	102.4	110.1	110.1	113.8
82.5°	87.3	83.5	75.9	68.3	68.3	72.0	75.9	79.7	79.7
85°	45.6	45.6	41.7	37.9	41.7	45.6	45.6	49.4	49.4
87.5°	15.2	15.2	15.2	15.2	19.0	19.0	19.0	19.0	19.0
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)