

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: P582603

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

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560835-61RWWH
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5147.1 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

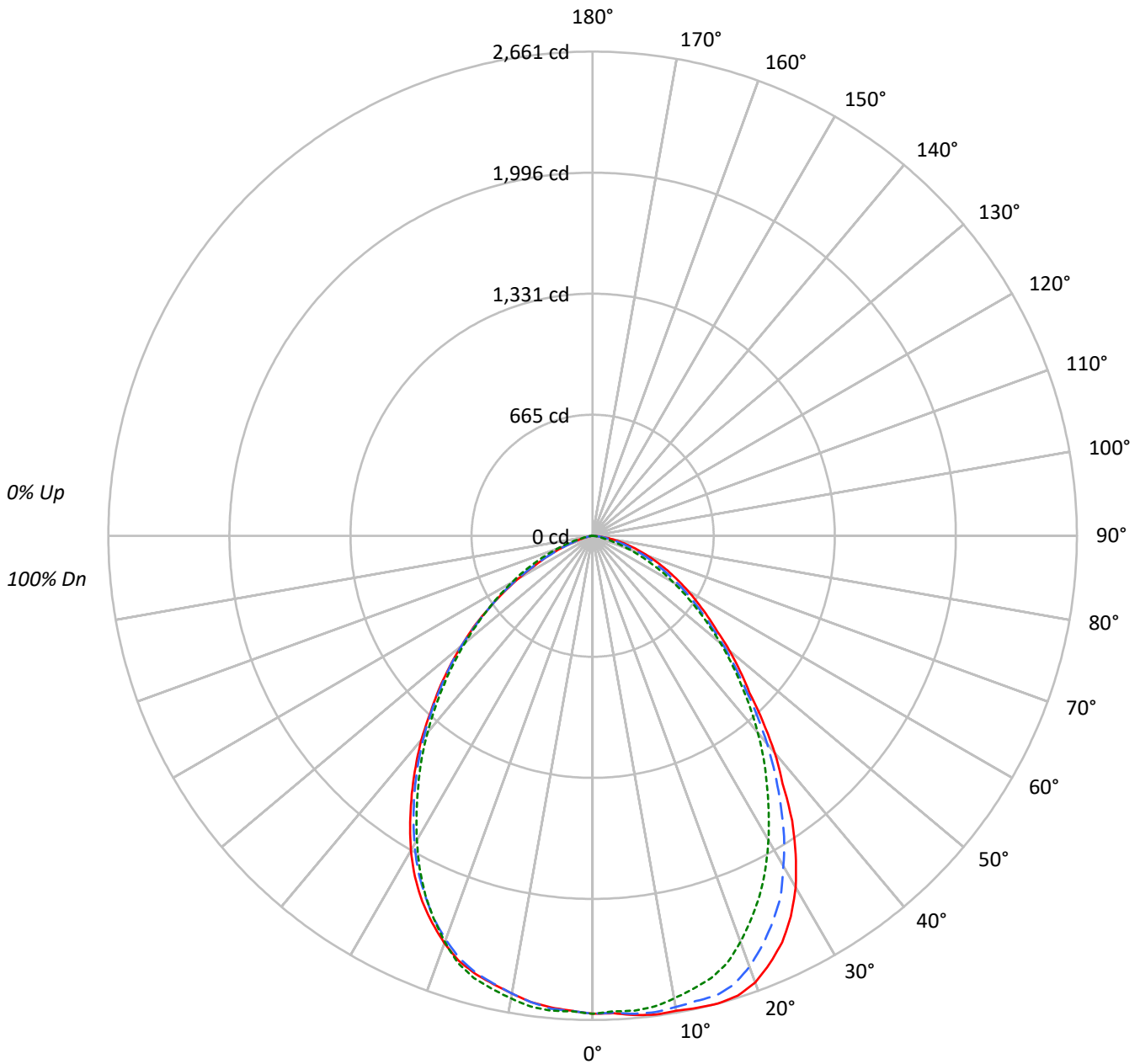
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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			100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			77
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			59
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			53
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			35
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	144002	144002	144002
5°	145493	144172	143225
10°	147565	143729	142193
15°	151034	142827	141459
20°	152438	138577	138985
25°	149095	131608	134107
30°	141212	122253	126399
35°	127870	111735	115891
40°	111359	101011	104703
45°	94483	89412	92614
50°	83682	78104	80151
55°	73699	66798	66473
60°	66058	56245	51717
65°	58943	45102	37060
70°	51868	32570	23177
75°	43760	19677	13111
80°	33685	8713	5430
85°	19499	2139	2139



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.3	4.8
10°-20°	716.6	13.9
20°-30°	1035.9	20.1
30°-40°	1090.0	21.2
40°-50°	916.3	17.8
50°-60°	643.1	12.5
60°-70°	353.8	6.9
70°-80°	125.6	2.4
80°-90°	16.4	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°	2001.9	38.9
0°-40°	3091.9	60.1
0°-60°	4651.3	90.4
0°-90°	5147.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5147.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2627	2627	2627	2627	2627	
5°	2644	2637	2620	2610	2603	253
15°	2661	2616	2517	2486	2492	751
25°	2465	2341	2176	2179	2217	1128
35°	1911	1801	1670	1704	1732	1184
45°	1219	1184	1153	1181	1195	956
55°	771	730	699	699	696	694
65°	454	406	348	286	286	452
75°	207	165	93	62	62	222
85°	31	17	3	3	3	43
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°	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8
2.5°	2626.8	2626.8	2623.3	2623.3	2616.5	2616.5	2613.0	2613.0	2613.0
5°	2643.9	2643.9	2637.1	2626.8	2619.9	2609.6	2609.6	2606.1	2602.7
7.5°	2654.3	2650.9	2640.5	2626.8	2609.6	2592.3	2585.4	2588.9	2585.4
10°	2650.9	2643.9	2630.2	2602.7	2582.0	2558.0	2554.4	2551.0	2554.4
12.5°	2657.8	2647.5	2619.9	2585.4	2551.0	2523.5	2520.1	2520.1	2523.5
15°	2661.2	2650.9	2616.5	2564.8	2516.6	2489.1	2485.6	2489.1	2492.5
17.5°	2650.9	2637.1	2585.4	2516.6	2461.5	2434.0	2434.0	2440.9	2447.7
20°	2613.0	2592.3	2520.1	2437.4	2375.4	2354.8	2361.7	2375.4	2382.4
22.5°	2544.1	2520.1	2437.4	2344.5	2279.0	2261.9	2279.0	2296.3	2303.2
25°	2464.9	2437.4	2341.1	2244.7	2175.8	2155.2	2179.2	2206.8	2217.1
27.5°	2358.2	2327.2	2237.7	2127.6	2058.7	2048.4	2076.0	2106.9	2113.9
30°	2230.8	2196.4	2096.6	1993.3	1931.3	1927.9	1958.9	1986.5	1996.8
32.5°	2076.0	2045.0	1958.9	1855.6	1800.6	1800.6	1831.5	1855.6	1865.9
35°	1910.7	1876.2	1800.6	1714.5	1669.6	1673.2	1704.1	1721.4	1731.7
37.5°	1714.5	1704.1	1645.6	1573.3	1542.4	1549.2	1573.3	1587.1	1597.4
40°	1556.1	1528.5	1490.6	1432.1	1411.5	1418.4	1442.4	1456.3	1463.1
42.5°	1383.9	1366.8	1335.8	1294.4	1280.7	1291.0	1311.6	1322.0	1318.6
45°	1218.7	1215.2	1184.3	1160.2	1153.3	1167.0	1180.9	1191.2	1194.6
47.5°	1098.2	1084.4	1056.9	1039.7	1032.8	1046.6	1060.4	1067.2	1067.2
50°	981.2	967.4	939.8	922.7	915.8	929.5	939.8	946.7	939.8
52.5°	864.1	850.3	826.3	805.6	802.1	809.0	812.4	815.9	822.9
55°	771.1	757.4	729.8	705.8	698.9	702.3	698.9	698.9	695.5
57.5°	681.6	667.9	640.3	612.8	602.5	599.1	588.7	585.2	581.8
60°	602.5	585.2	557.8	526.7	513.0	499.2	482.0	471.7	471.7
62.5°	526.7	509.6	478.6	451.0	430.4	406.2	378.6	364.9	364.9
65°	454.4	440.7	406.2	375.2	347.7	316.7	285.7	278.8	285.7
67.5°	385.6	371.8	337.4	306.4	272.0	234.1	206.6	206.6	213.5
70°	323.6	309.8	278.8	240.9	203.2	165.3	144.6	144.6	144.6
72.5°	265.1	251.4	216.9	182.5	144.6	106.7	96.4	99.8	96.4
75°	206.6	196.2	165.3	127.4	92.9	65.5	61.9	58.5	61.9
77.5°	155.0	144.6	117.1	82.6	51.6	37.9	34.4	34.4	34.4
80°	106.7	96.4	75.8	48.2	27.6	17.2	17.2	17.2	17.2
82.5°	65.5	55.1	41.3	24.0	10.3	10.3	10.3	10.3	10.3
85°	31.0	24.0	17.2	6.9	3.4	3.4	3.4	3.4	3.4
87.5°	6.9	6.9	3.4	3.4	0.0	3.4	3.4	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)