

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: P582681

Luminaire Tested: **HC645D010-HM64560935-61WWBB**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582681
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: HC645D010-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: 3885.4 lumens
Efficiency: N/A
Efficacy: 88.3 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

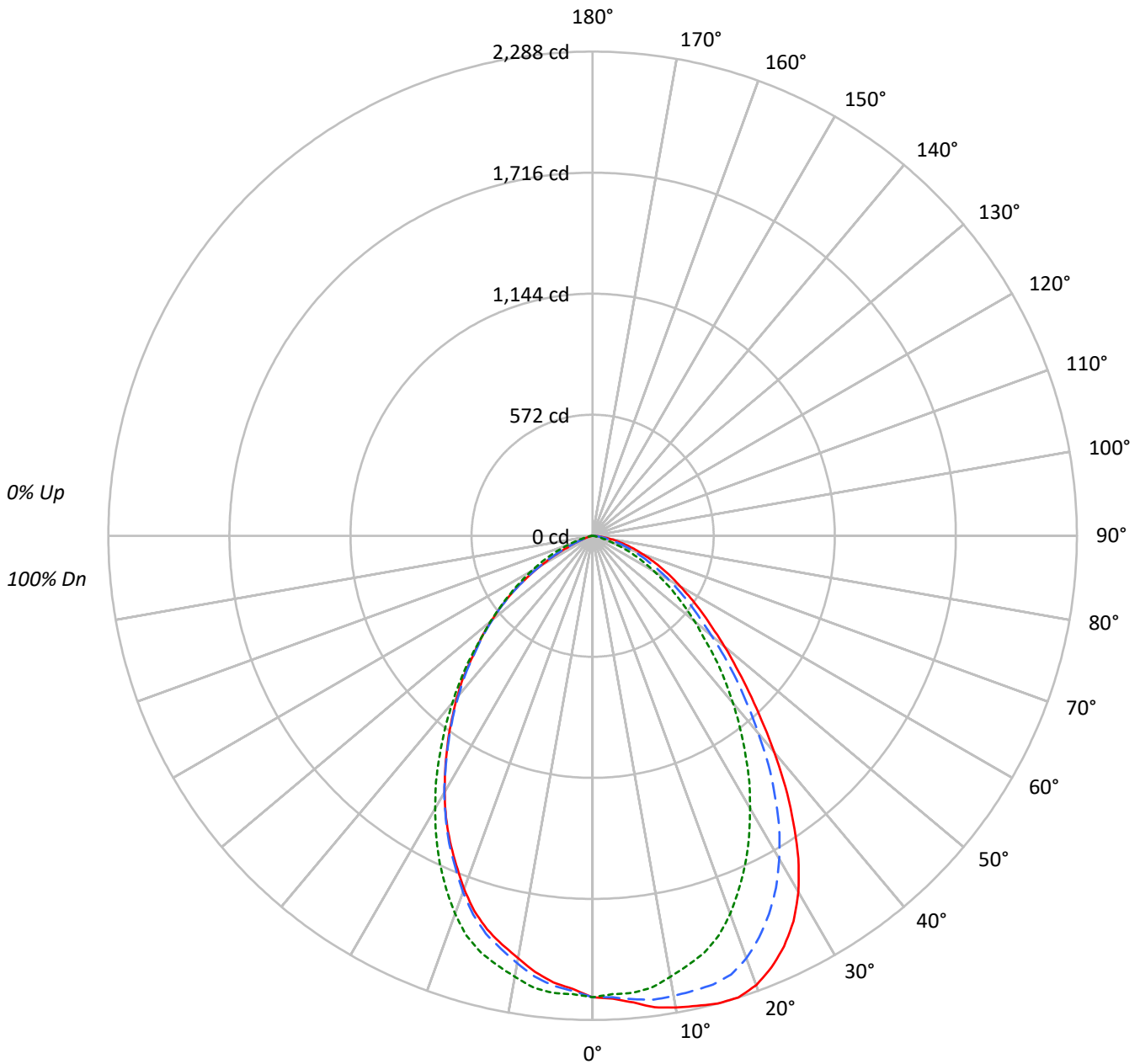
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78			78
3	96	87	80	75	93	86	79	74	83	77	73	80	76	72	78	74	71	69			69
4	89	79	71	66	87	78	71	65	75	69	64	73	68	64	71	67	63	61			61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54			54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49			49
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44			44
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40			40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37			37
10	60	48	40	36	58	47	40	36	46	40	36	45	40	35	45	39	35	34			34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	119530	119530	119530
5°	121835	119310	116608
10°	125977	117789	112829
15°	129836	115738	109297
20°	131845	110919	103586
25°	129473	103318	96453
30°	123070	94141	88514
35°	110617	84142	79833
40°	95457	73738	71319
45°	80838	63479	61813
50°	69311	53610	53090
55°	60079	45131	43372
60°	52441	36653	30930
65°	46153	28239	17097
70°	39814	18673	8351
75°	33762	9087	3262
80°	26140	3883	1926
85°	15410	1887	1887



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.7	5.3
10°-20°	581.8	15.0
20°-30°	819.4	21.1
30°-40°	837.2	21.5
40°-50°	675.0	17.4
50°-60°	452.7	11.7
60°-70°	229.1	5.9
70°-80°	73.2	1.9
80°-90°	11.2	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°	1607.0	41.4
0°-40°	2444.1	62.9
0°-60°	3571.8	91.9
0°-90°	3885.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3885.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2180	2180	2180	2180	2180	
5°	2214	2199	2168	2134	2119	213
15°	2288	2196	2039	1947	1926	646
25°	2140	1972	1708	1604	1595	980
35°	1653	1503	1257	1187	1193	1029
45°	1043	960	819	791	797	811
55°	629	558	472	451	454	566
65°	356	294	218	144	132	355
75°	159	113	43	15	15	171
85°	24	12	3	3	3	33
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°	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4	2180.4
2.5°	2189.5	2186.5	2183.4	2177.2	2168.1	2158.9	2152.7	2146.6	2143.5
5°	2214.0	2207.9	2198.7	2186.5	2168.1	2146.6	2134.3	2122.1	2119.0
7.5°	2247.8	2235.5	2211.0	2183.4	2152.7	2122.1	2100.6	2088.3	2079.1
10°	2263.1	2241.6	2207.9	2162.0	2116.0	2079.1	2051.6	2033.2	2026.9
12.5°	2275.4	2250.9	2201.8	2140.5	2079.1	2030.1	1999.4	1984.0	1977.9
15°	2287.7	2263.1	2195.6	2116.0	2039.3	1981.0	1947.3	1931.9	1925.8
17.5°	2287.7	2253.9	2174.2	2073.0	1981.0	1910.5	1876.7	1861.4	1858.4
20°	2260.0	2223.3	2125.1	2005.5	1901.3	1821.6	1790.8	1781.7	1775.6
22.5°	2207.9	2165.0	2054.6	1919.6	1806.2	1729.6	1695.8	1689.7	1683.5
25°	2140.5	2097.6	1971.8	1827.7	1708.1	1631.4	1603.8	1597.6	1594.6
27.5°	2054.6	2008.6	1876.7	1729.6	1600.8	1527.1	1502.6	1502.6	1499.6
30°	1944.2	1892.0	1763.3	1616.0	1487.2	1419.8	1401.4	1401.4	1398.3
32.5°	1809.2	1757.2	1640.6	1499.6	1376.9	1306.4	1291.0	1297.1	1294.1
35°	1652.9	1609.9	1502.6	1364.7	1257.3	1192.9	1186.7	1192.9	1192.9
37.5°	1496.5	1456.6	1364.7	1245.0	1143.8	1085.6	1085.6	1094.8	1091.7
40°	1333.9	1303.3	1217.5	1113.2	1030.4	990.5	984.4	993.5	996.6
42.5°	1180.6	1156.1	1082.4	996.6	923.0	883.2	892.4	898.5	901.6
45°	1042.7	1018.0	959.9	871.0	818.8	791.2	791.2	800.3	797.3
47.5°	920.0	901.6	843.3	757.4	711.4	699.2	705.3	711.4	711.4
50°	812.7	785.1	729.8	662.4	628.6	613.4	619.5	622.5	622.5
52.5°	711.4	693.0	637.9	576.5	545.8	536.6	536.6	539.7	539.7
55°	628.6	607.1	558.1	496.8	472.2	459.9	450.8	447.7	453.8
57.5°	549.0	530.5	484.6	426.3	398.7	386.4	368.0	361.9	368.0
60°	478.3	463.1	417.0	361.9	334.3	309.7	288.2	276.0	282.1
62.5°	417.0	398.7	352.6	306.6	276.0	248.4	214.7	196.2	205.5
65°	355.8	340.4	294.4	248.4	217.7	184.0	144.2	131.8	131.8
67.5°	300.5	285.2	242.2	202.3	165.6	125.7	88.9	85.9	88.9
70°	248.4	233.1	196.2	156.4	116.5	76.7	52.1	52.1	52.1
72.5°	205.5	187.1	153.3	113.4	73.5	39.9	27.6	30.6	30.6
75°	159.4	144.2	113.4	76.7	42.9	18.4	15.4	15.4	15.4
77.5°	119.6	107.3	79.8	49.0	21.5	6.1	6.1	6.1	6.1
80°	82.8	70.5	52.1	30.6	12.3	6.1	6.1	6.1	6.1
82.5°	49.0	42.9	30.6	15.4	6.1	3.0	3.0	3.0	3.0
85°	24.5	21.5	12.3	6.1	3.0	3.0	3.0	3.0	3.0
87.5°	6.1	6.1	3.0	3.0	0.0	3.0	3.0	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)