

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: P581386

Luminaire Tested: **HC460D010-HM44560935-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581386
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC460D010-HM44560935-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" 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: 3654.2 lumens
Efficiency: N/A
Efficacy: 66.4 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

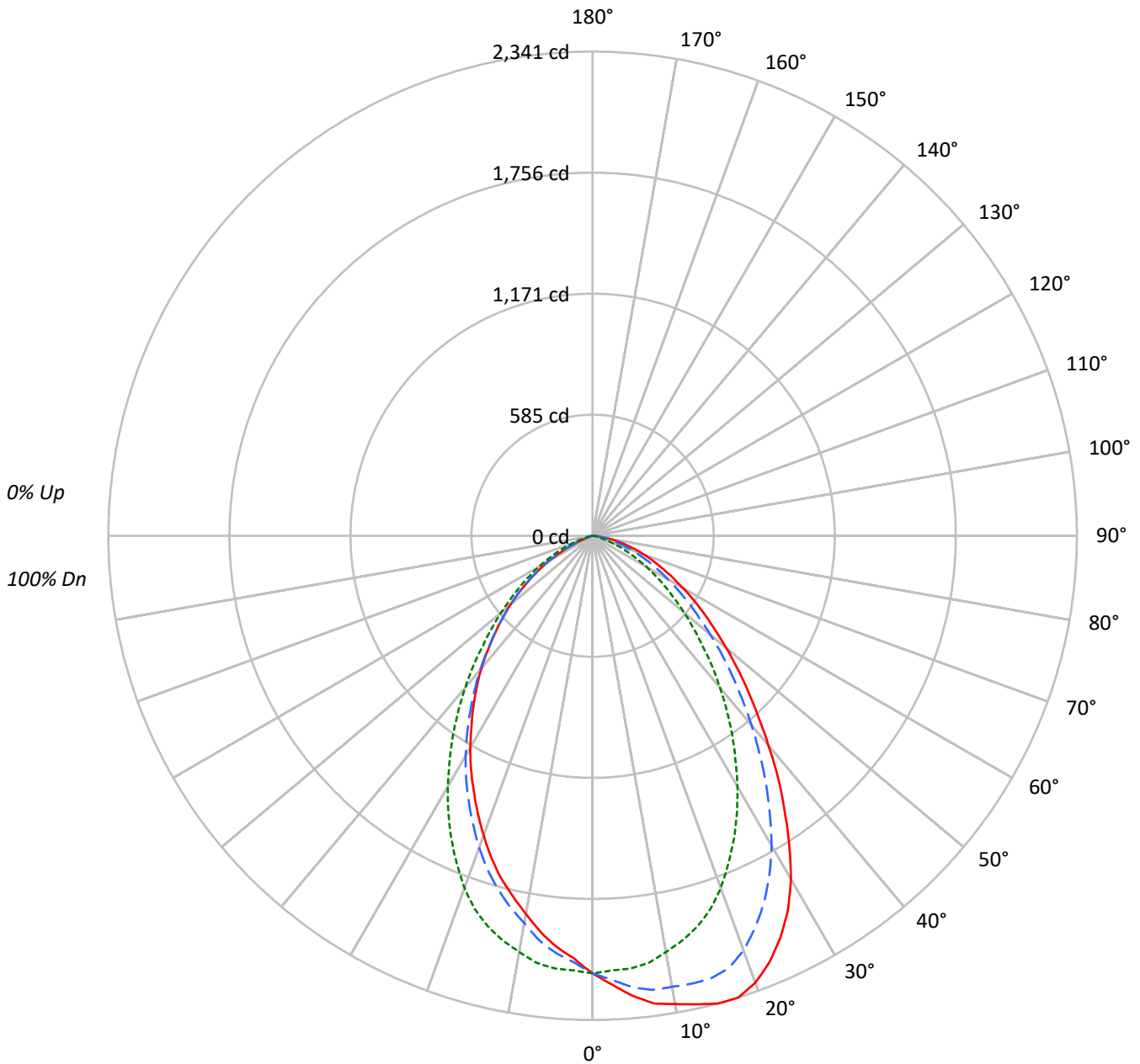
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69																			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61																			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55																			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49																			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44																			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40																			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37																			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	260950	260950	260950
5°	276471	260065	247039
10°	287959	255920	232549
15°	298976	249788	218655
20°	301784	237794	202235
25°	292009	219932	185105
30°	273019	199298	168434
35°	243333	177169	151330
40°	212719	154093	134706
45°	185287	130706	116541
50°	161688	110875	99899
55°	141737	91889	80901
60°	123962	74254	59379
65°	108018	55337	33389
70°	94415	35811	10855
75°	77443	18634	2859
80°	57678	8595	2131
85°	33966	4246	4246



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.7	5.5
10°-20°	558.8	15.3
20°-30°	772.6	21.1
30°-40°	776.9	21.3
40°-50°	626.9	17.2
50°-60°	423.9	11.6
60°-70°	215.8	5.9
70°-80°	69.1	1.9
80°-90°	10.6	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°	1531.1	41.9
0°-40°	2308.0	63.2
0°-60°	3358.8	91.9
0°-90°	3654.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3654.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2116	2116	2116	2116	2116	
5°	2233	2191	2100	2025	1995	215
15°	2341	2215	1956	1770	1712	659
25°	2146	1959	1616	1417	1360	982
35°	1616	1460	1177	1029	1005	1010
45°	1062	951	749	668	668	823
55°	659	569	427	373	376	592
65°	370	301	190	123	114	371
75°	162	114	39	9	6	175
85°	24	12	3	3	3	32
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°	2115.6	2115.6	2115.6	2115.6	2115.6	2115.6	2115.6	2115.6	2115.6
2.5°	2172.8	2160.7	2148.6	2127.5	2103.5	2079.5	2064.4	2052.3	2046.3
5°	2232.9	2217.9	2190.8	2145.6	2100.4	2058.4	2025.2	2004.2	1995.2
7.5°	2281.0	2259.9	2214.8	2151.7	2082.4	2016.2	1974.1	1944.0	1931.9
10°	2299.1	2275.1	2214.8	2130.6	2043.3	1962.0	1901.9	1871.8	1856.7
12.5°	2320.2	2293.1	2217.9	2112.5	2004.2	1907.9	1838.6	1799.5	1784.5
15°	2341.3	2305.1	2214.8	2085.4	1956.1	1844.7	1769.5	1730.4	1712.3
17.5°	2341.3	2299.1	2190.8	2040.3	1892.9	1775.5	1691.2	1646.1	1631.1
20°	2299.1	2250.9	2133.6	1968.0	1811.6	1685.2	1603.9	1558.8	1540.7
22.5°	2232.9	2178.7	2052.3	1880.8	1715.3	1591.9	1510.6	1468.5	1450.5
25°	2145.6	2091.4	1959.0	1781.5	1616.0	1492.6	1417.3	1378.3	1360.1
27.5°	2043.3	1983.1	1850.7	1673.2	1510.6	1393.3	1324.0	1288.0	1272.9
30°	1916.9	1859.7	1730.4	1555.9	1399.3	1291.0	1227.8	1194.7	1182.6
32.5°	1769.5	1721.3	1594.9	1432.4	1285.0	1185.6	1128.5	1101.4	1089.3
35°	1616.0	1570.9	1459.5	1309.0	1176.6	1083.3	1029.2	1011.1	1005.0
37.5°	1471.6	1432.4	1324.0	1185.6	1065.3	984.1	935.9	923.8	917.9
40°	1321.1	1294.0	1194.7	1068.3	957.0	884.7	845.7	836.6	836.6
42.5°	1185.6	1155.5	1068.3	953.9	854.7	782.4	755.3	746.3	749.3
45°	1062.2	1032.2	950.9	845.7	749.3	689.1	668.1	668.1	668.1
47.5°	948.0	920.8	845.7	737.3	659.1	610.9	589.8	589.8	592.9
50°	842.6	824.6	740.3	647.0	577.8	532.6	517.6	514.6	520.6
52.5°	743.2	722.3	647.0	562.8	496.5	460.4	445.3	442.4	445.3
55°	659.1	635.0	568.7	487.5	427.3	391.2	373.1	370.1	376.2
57.5°	577.8	559.7	490.6	418.3	361.1	325.0	310.0	303.9	306.9
60°	502.5	484.5	421.3	352.0	301.0	264.9	243.8	237.8	240.7
62.5°	433.4	418.3	358.1	291.9	240.7	207.7	186.6	171.6	177.5
65°	370.1	355.1	301.0	234.7	189.6	153.5	123.4	111.3	114.4
67.5°	316.0	297.9	246.8	186.6	141.5	102.3	69.3	63.2	63.2
70°	261.8	243.8	198.6	144.5	99.3	54.1	30.1	30.1	30.1
72.5°	210.6	195.6	153.5	108.3	63.2	24.0	12.1	12.1	12.1
75°	162.5	150.5	114.4	75.2	39.1	12.1	9.0	6.0	6.0
77.5°	120.4	108.3	81.2	51.2	24.0	6.0	6.0	6.0	6.0
80°	81.2	72.2	54.1	30.1	12.1	3.0	3.0	3.0	3.0
82.5°	48.2	42.1	30.1	15.0	6.0	3.0	3.0	3.0	3.0
85°	24.0	18.0	12.1	6.0	3.0	3.0	3.0	3.0	3.0
87.5°	6.0	3.0	3.0	3.0	0.0	0.0	0.0	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)