

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: P581278

Luminaire Tested: **HC460D010-HM44560827-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581278
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-HM44560827-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3729.1 lumens
Efficiency: N/A
Efficacy: 67.8 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

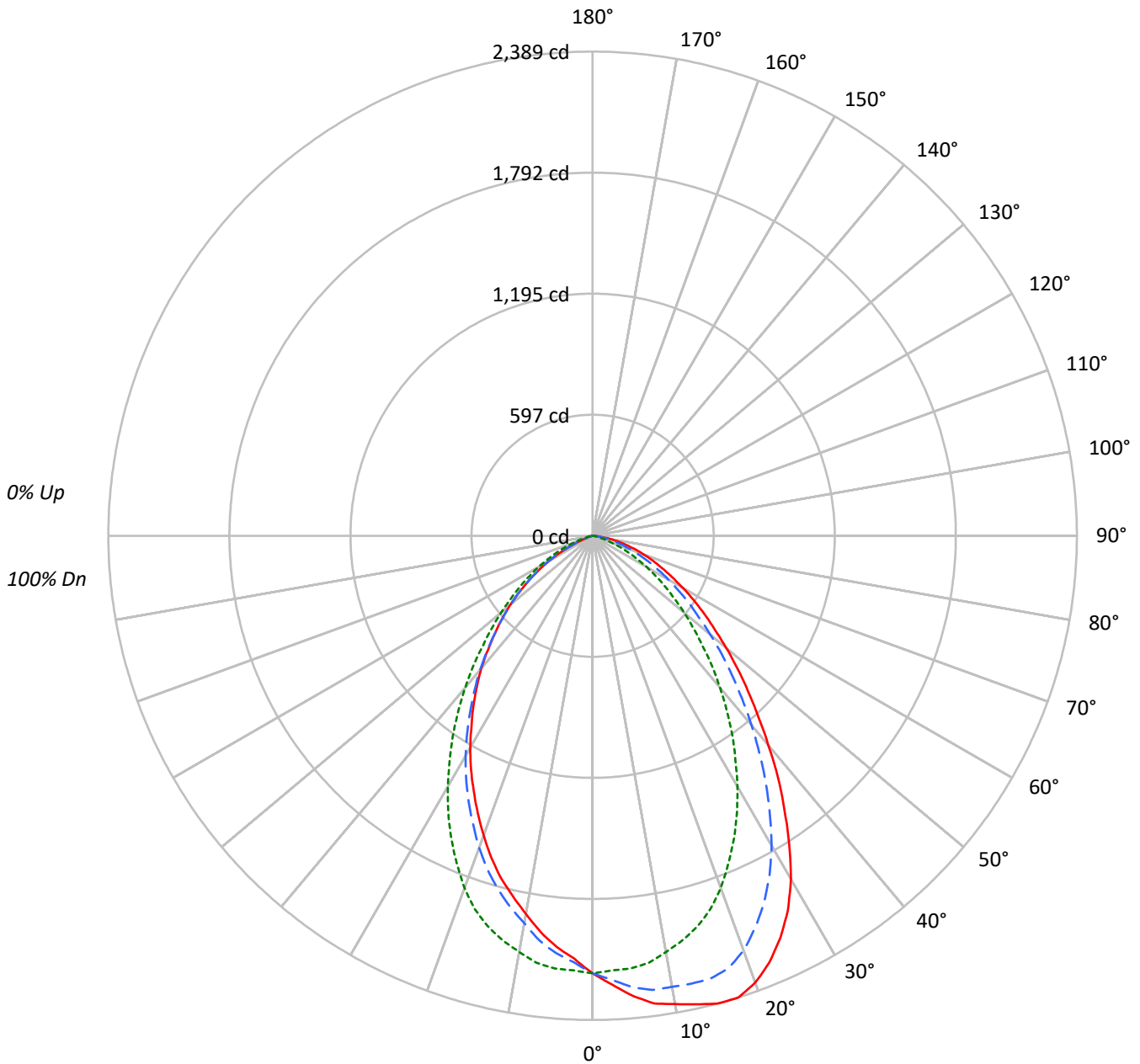
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	92	87	84	88	85	82	85	83	80	78			78
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69			69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61			61
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55			55
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49			49
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44			44
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40			40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37			37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34			34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	266291	266291	266291
5°	282141	265401	252091
10°	293858	261168	237321
15°	305093	254896	223137
20°	307966	242677	206383
25°	298011	224437	188916
30°	278630	203386	171910
35°	248317	180813	154447
40°	217082	157249	137476
45°	189107	133392	118931
50°	165008	113139	101952
55°	144619	93782	82556
60°	126528	75784	60612
65°	110265	56475	34060
70°	96363	36533	11072
75°	79015	19015	2907
80°	58885	8737	2131
85°	34815	4246	4246



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.8	5.5
10°-20°	570.3	15.3
20°-30°	788.5	21.1
30°-40°	792.8	21.3
40°-50°	639.8	17.2
50°-60°	432.6	11.6
60°-70°	220.2	5.9
70°-80°	70.5	1.9
80°-90°	10.8	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°	1562.5	41.9
0°-40°	2355.3	63.2
0°-60°	3427.7	91.9
0°-90°	3729.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3729.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2159	2159	2159	2159	2159	
5°	2279	2236	2144	2067	2036	220
15°	2389	2260	1996	1806	1747	673
25°	2190	1999	1649	1446	1388	1002
35°	1649	1489	1201	1050	1026	1030
45°	1084	970	765	682	682	840
55°	672	580	436	381	384	604
65°	378	307	194	126	117	379
75°	166	117	40	9	6	179
85°	25	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°	2158.9	2158.9	2158.9	2158.9	2158.9	2158.9	2158.9	2158.9	2158.9
2.5°	2217.3	2205.0	2192.7	2171.2	2146.7	2122.1	2106.8	2094.5	2088.3
5°	2278.7	2263.3	2235.7	2189.7	2143.5	2100.6	2066.8	2045.3	2036.0
7.5°	2327.9	2306.3	2260.3	2195.8	2125.2	2057.6	2014.6	1983.9	1971.6
10°	2346.2	2321.6	2260.3	2174.3	2085.2	2002.3	1940.8	1910.2	1894.8
12.5°	2367.8	2340.1	2263.3	2155.8	2045.3	1947.0	1876.4	1836.5	1821.2
15°	2389.2	2352.4	2260.3	2128.2	1996.1	1882.5	1805.8	1765.9	1747.4
17.5°	2389.2	2346.2	2235.7	2082.2	1931.7	1811.9	1726.0	1679.8	1664.5
20°	2346.2	2297.2	2177.4	2008.4	1848.8	1719.7	1636.8	1590.8	1572.3
22.5°	2278.7	2223.4	2094.5	1919.4	1750.4	1624.5	1541.6	1498.7	1480.3
25°	2189.7	2134.4	1999.3	1818.0	1649.1	1523.3	1446.4	1406.5	1388.1
27.5°	2085.2	2023.9	1888.7	1707.5	1541.6	1421.8	1351.2	1314.3	1299.0
30°	1956.3	1897.9	1765.9	1587.8	1428.0	1317.5	1253.0	1219.1	1207.0
32.5°	1805.8	1756.6	1627.6	1461.8	1311.3	1210.0	1151.7	1123.9	1111.8
35°	1649.1	1603.1	1489.4	1335.9	1200.8	1105.6	1050.3	1031.9	1025.7
37.5°	1501.7	1461.8	1351.2	1210.0	1087.2	1004.3	955.1	942.8	936.7
40°	1348.2	1320.5	1219.1	1090.2	976.6	902.9	862.9	853.8	853.8
42.5°	1210.0	1179.3	1090.2	973.5	872.2	798.5	770.9	761.6	764.7
45°	1084.1	1053.3	970.4	862.9	764.7	703.3	681.8	681.8	681.8
47.5°	967.4	939.7	862.9	752.4	672.5	623.4	601.9	601.9	604.9
50°	859.9	841.5	755.4	660.2	589.6	543.6	528.2	525.2	531.3
52.5°	758.6	737.0	660.2	574.3	506.7	469.8	454.5	451.4	454.5
55°	672.5	648.0	580.5	497.6	436.1	399.2	380.8	377.8	383.9
57.5°	589.6	571.2	500.6	426.8	368.5	331.6	316.3	310.2	313.2
60°	512.9	494.4	430.0	359.3	307.2	270.3	248.7	242.6	245.7
62.5°	442.2	426.8	365.5	297.9	245.7	212.0	190.4	175.1	181.2
65°	377.8	362.4	307.2	239.6	193.5	156.6	125.9	113.6	116.7
67.5°	322.5	304.0	251.8	190.4	144.4	104.5	70.6	64.5	64.5
70°	267.2	248.7	202.7	147.4	101.3	55.3	30.7	30.7	30.7
72.5°	215.0	199.7	156.6	110.5	64.5	24.6	12.3	12.3	12.3
75°	165.8	153.5	116.7	76.8	39.9	12.3	9.2	6.1	6.1
77.5°	122.8	110.5	82.9	52.2	24.6	6.1	6.1	6.1	6.1
80°	82.9	73.7	55.3	30.7	12.3	3.0	3.0	3.0	3.0
82.5°	49.2	43.0	30.7	15.3	6.1	3.0	3.0	3.0	3.0
85°	24.6	18.4	12.3	6.1	3.0	3.0	3.0	3.0	3.0
87.5°	6.1	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)