

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: P581242

Luminaire Tested: **HC455D010-HM44560935-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581242
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: HC455D010-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: 3512.3 lumens
Efficiency: N/A
Efficacy: 67.5 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

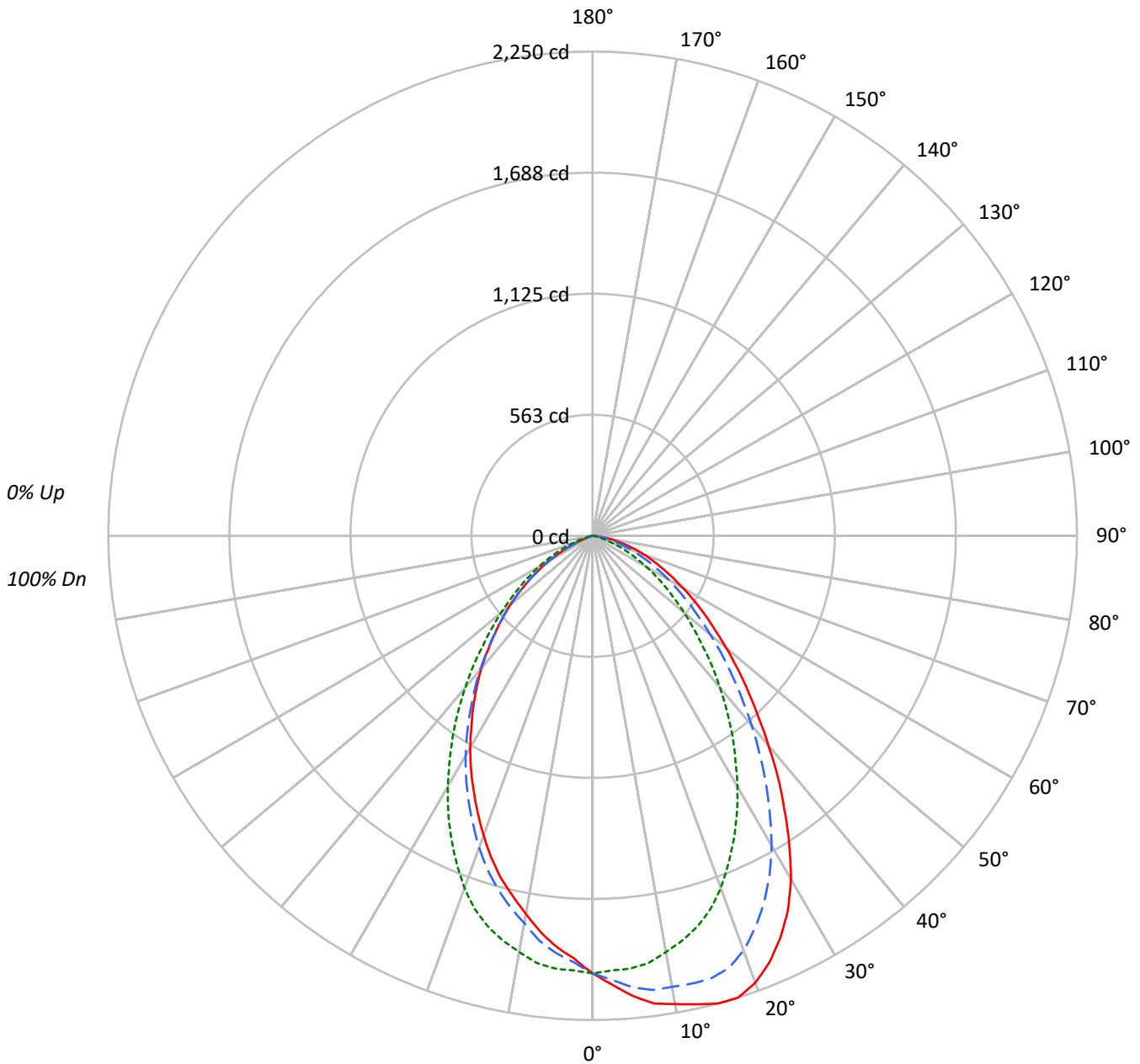
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	250811	250811	250811
5°	265736	249974	237443
10°	276774	245988	223518
15°	287356	240083	210163
20°	290062	228566	194399
25°	280686	211399	177933
30°	262422	191550	161897
35°	233892	170303	145458
40°	204458	148103	129489
45°	178100	125630	112023
50°	155413	106557	96023
55°	136232	88320	77761
60°	119177	71343	57084
65°	103815	53177	32075
70°	90773	34405	10422
75°	74440	17919	2716
80°	55476	8240	2060
85°	32833	4104	4104



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.9	5.5
10°-20°	537.1	15.3
20°-30°	742.6	21.1
30°-40°	746.7	21.3
40°-50°	602.6	17.2
50°-60°	407.4	11.6
60°-70°	207.4	5.9
70°-80°	66.4	1.9
80°-90°	10.2	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°	1471.7	41.9
0°-40°	2218.4	63.2
0°-60°	3228.4	91.9
0°-90°	3512.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3512.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2033	2033	2033	2033	2033	
5°	2146	2106	2019	1947	1918	207
15°	2250	2129	1880	1701	1646	634
25°	2062	1883	1553	1362	1307	944
35°	1553	1403	1131	989	966	971
45°	1021	914	720	642	642	791
55°	634	547	411	359	362	569
65°	356	289	182	119	110	357
75°	156	110	38	9	6	168
85°	23	12	3	3	3	31
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°	2033.4	2033.4	2033.4	2033.4	2033.4	2033.4	2033.4	2033.4	2033.4
2.5°	2088.3	2076.8	2065.2	2044.9	2021.8	1998.7	1984.3	1972.7	1966.8
5°	2146.2	2131.8	2105.7	2062.4	2018.9	1978.4	1946.6	1926.3	1917.7
7.5°	2192.5	2172.3	2128.8	2068.1	2001.6	1937.9	1897.4	1868.5	1856.9
10°	2209.8	2186.7	2128.8	2047.8	1964.0	1885.8	1828.0	1799.1	1784.6
12.5°	2230.1	2204.1	2131.8	2030.5	1926.3	1833.9	1767.3	1729.7	1715.2
15°	2250.3	2215.6	2128.8	2004.4	1880.1	1773.1	1700.8	1663.2	1645.8
17.5°	2250.3	2209.8	2105.7	1961.1	1819.4	1706.5	1625.5	1582.2	1567.7
20°	2209.8	2163.6	2050.8	1891.7	1741.3	1619.8	1541.7	1498.3	1481.0
22.5°	2146.2	2094.2	1972.7	1807.8	1648.7	1530.1	1452.0	1411.5	1394.2
25°	2062.4	2010.3	1883.0	1712.4	1553.3	1434.6	1362.4	1324.7	1307.4
27.5°	1964.0	1906.1	1778.8	1608.2	1452.0	1339.2	1272.7	1238.0	1223.6
30°	1842.5	1787.5	1663.2	1495.4	1344.9	1240.9	1180.1	1148.3	1136.7
32.5°	1700.8	1654.5	1533.0	1376.8	1235.0	1139.6	1084.7	1058.6	1047.0
35°	1553.3	1509.9	1402.9	1258.2	1131.0	1041.3	989.2	971.9	966.0
37.5°	1414.5	1376.8	1272.7	1139.6	1024.0	945.8	899.6	888.0	882.2
40°	1269.8	1243.8	1148.3	1026.8	919.8	850.4	812.8	804.2	804.2
42.5°	1139.6	1110.7	1026.8	916.9	821.5	752.1	726.0	717.3	720.2
45°	1021.0	992.1	914.1	812.8	720.2	662.4	642.2	642.2	642.2
47.5°	911.1	885.0	812.8	708.6	633.5	587.1	566.9	566.9	569.8
50°	809.9	792.6	711.6	621.9	555.3	512.0	497.5	494.7	500.4
52.5°	714.5	694.2	621.9	540.9	477.2	442.6	428.1	425.1	428.1
55°	633.5	610.3	546.6	468.6	410.7	376.0	358.7	355.7	361.6
57.5°	555.3	538.0	471.5	402.1	347.1	312.4	297.9	292.2	295.0
60°	483.1	465.6	404.9	338.4	289.2	254.6	234.3	228.5	231.4
62.5°	416.5	402.1	344.2	280.6	231.4	199.6	179.3	164.9	170.7
65°	355.7	341.3	289.2	225.6	182.2	147.5	118.6	107.0	109.9
67.5°	303.8	286.3	237.2	179.3	135.9	98.3	66.5	60.8	60.8
70°	251.7	234.3	190.9	138.8	95.4	52.1	28.9	28.9	28.9
72.5°	202.5	188.0	147.5	104.2	60.8	23.2	11.6	11.6	11.6
75°	156.2	144.7	109.9	72.3	37.6	11.6	8.7	5.7	5.7
77.5°	115.6	104.2	78.1	49.2	23.2	5.7	5.7	5.7	5.7
80°	78.1	69.4	52.1	28.9	11.6	2.9	2.9	2.9	2.9
82.5°	46.2	40.5	28.9	14.5	5.7	2.9	2.9	2.9	2.9
85°	23.2	17.3	11.6	5.7	2.9	2.9	2.9	2.9	2.9
87.5°	5.7	2.9	2.9	2.9	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)