

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: P581260

Luminaire Tested: **HC455D010-HM44560940-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581260
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-HM44560940-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3484.9 lumens
Efficiency: N/A
Efficacy: 67.0 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

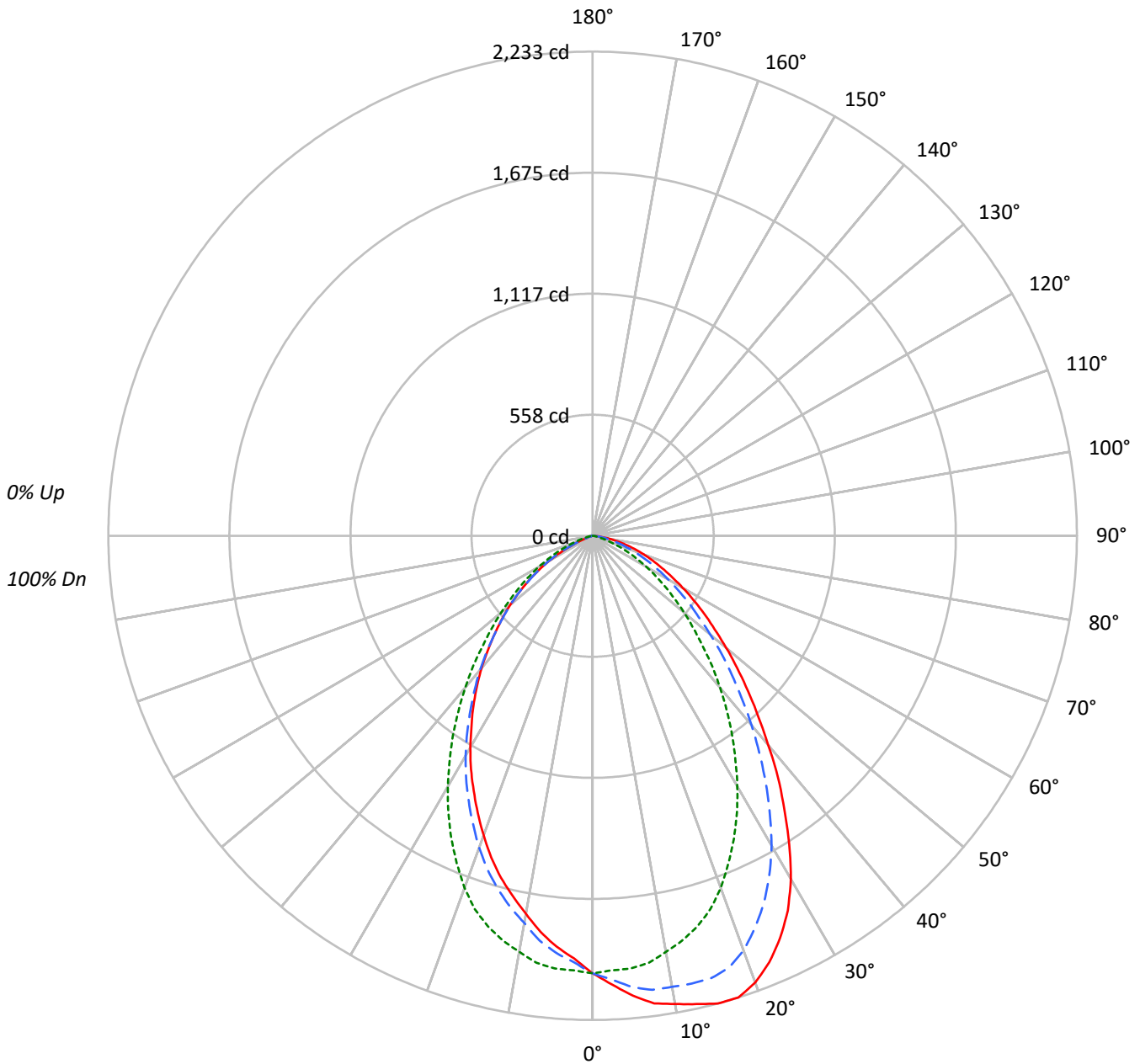
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	248862	248862	248862
5°	263655	248030	235586
10°	274620	244059	221790
15°	285121	238218	208516
20°	287804	226781	192876
25°	278495	209739	176545
30°	260371	190069	160629
35°	232055	168963	144328
40°	202864	146943	128459
45°	176722	124653	111134
50°	154204	105732	95274
55°	135157	87631	77159
60°	118214	70800	56640
65°	103027	52768	31813
70°	90015	34152	10350
75°	73868	17824	2716
80°	55050	8169	2060
85°	32550	4104	4104



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.4	5.5
10°-20°	532.9	15.3
20°-30°	736.8	21.1
30°-40°	740.9	21.3
40°-50°	597.9	17.2
50°-60°	404.2	11.6
60°-70°	205.8	5.9
70°-80°	65.9	1.9
80°-90°	10.1	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°	1460.2	41.9
0°-40°	2201.1	63.2
0°-60°	3203.2	91.9
0°-90°	3484.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3484.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2018	2018	2018	2018	2018	
5°	2129	2089	2003	1931	1903	205
15°	2233	2112	1866	1688	1633	629
25°	2046	1868	1541	1352	1297	936
35°	1541	1392	1122	981	958	963
45°	1013	907	715	637	637	785
55°	628	542	408	356	359	565
65°	353	287	181	118	109	354
75°	155	109	37	9	6	167
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°	2017.6	2017.6	2017.6	2017.6	2017.6	2017.6	2017.6	2017.6	2017.6
2.5°	2072.0	2060.5	2049.1	2029.0	2006.1	1983.0	1968.8	1957.3	1951.5
5°	2129.4	2115.1	2089.2	2046.3	2003.2	1963.0	1931.4	1911.4	1902.7
7.5°	2175.4	2155.3	2112.2	2052.0	1986.0	1922.8	1882.7	1854.0	1842.4
10°	2192.6	2169.7	2112.2	2031.9	1948.6	1871.2	1813.7	1785.0	1770.8
12.5°	2212.6	2186.9	2115.1	2014.6	1911.4	1819.5	1753.5	1716.2	1701.8
15°	2232.8	2198.4	2112.2	1988.8	1865.5	1759.3	1687.5	1650.2	1632.9
17.5°	2232.8	2192.6	2089.2	1945.8	1805.2	1693.2	1612.9	1569.8	1555.4
20°	2192.6	2146.7	2034.8	1877.0	1727.7	1607.2	1529.7	1486.6	1469.4
22.5°	2129.4	2077.8	1957.3	1793.7	1635.9	1518.2	1440.7	1400.5	1383.3
25°	2046.3	1994.6	1868.3	1699.0	1541.1	1423.5	1351.7	1314.4	1297.2
27.5°	1948.6	1891.2	1765.0	1595.7	1440.7	1328.7	1262.7	1228.3	1214.0
30°	1828.1	1773.6	1650.2	1483.8	1334.5	1231.2	1170.9	1139.4	1127.8
32.5°	1687.5	1641.6	1521.0	1366.1	1225.5	1130.7	1076.2	1050.4	1038.9
35°	1541.1	1498.0	1391.9	1248.4	1122.1	1033.2	981.4	964.2	958.5
37.5°	1403.3	1366.1	1262.7	1130.7	1016.0	938.5	892.6	881.1	875.4
40°	1259.9	1234.0	1139.4	1018.8	912.6	843.8	806.4	797.8	797.8
42.5°	1130.7	1102.0	1018.8	909.8	815.1	746.2	720.3	711.8	714.6
45°	1013.1	984.4	906.9	806.4	714.6	657.2	637.1	637.1	637.1
47.5°	904.0	878.2	806.4	703.1	628.5	582.6	562.5	562.5	565.3
50°	803.6	786.4	705.9	617.1	551.0	507.9	493.6	490.7	496.5
52.5°	708.9	688.7	617.1	536.6	473.5	439.1	424.7	421.9	424.7
55°	628.5	605.6	542.4	465.0	407.5	373.0	355.8	353.0	358.8
57.5°	551.0	533.8	467.8	398.9	344.4	309.9	295.7	289.9	292.7
60°	479.2	462.0	401.7	335.8	287.0	252.6	232.4	226.7	229.6
62.5°	413.2	398.9	341.6	278.3	229.6	198.0	178.0	163.6	169.3
65°	353.0	338.6	287.0	223.9	180.8	146.4	117.7	106.2	109.0
67.5°	301.4	284.1	235.4	178.0	134.9	97.5	66.0	60.3	60.3
70°	249.6	232.4	189.5	137.7	94.7	51.6	28.7	28.7	28.7
72.5°	200.9	186.5	146.4	103.3	60.3	23.0	11.5	11.5	11.5
75°	155.0	143.5	109.0	71.8	37.4	11.5	8.7	5.7	5.7
77.5°	114.8	103.3	77.5	48.8	23.0	5.7	5.7	5.7	5.7
80°	77.5	68.9	51.6	28.7	11.5	2.9	2.9	2.9	2.9
82.5°	45.9	40.2	28.7	14.4	5.7	2.9	2.9	2.9	2.9
85°	23.0	17.2	11.5	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)