

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: P581388

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581388
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC460D010-HM44560935-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4548.2 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

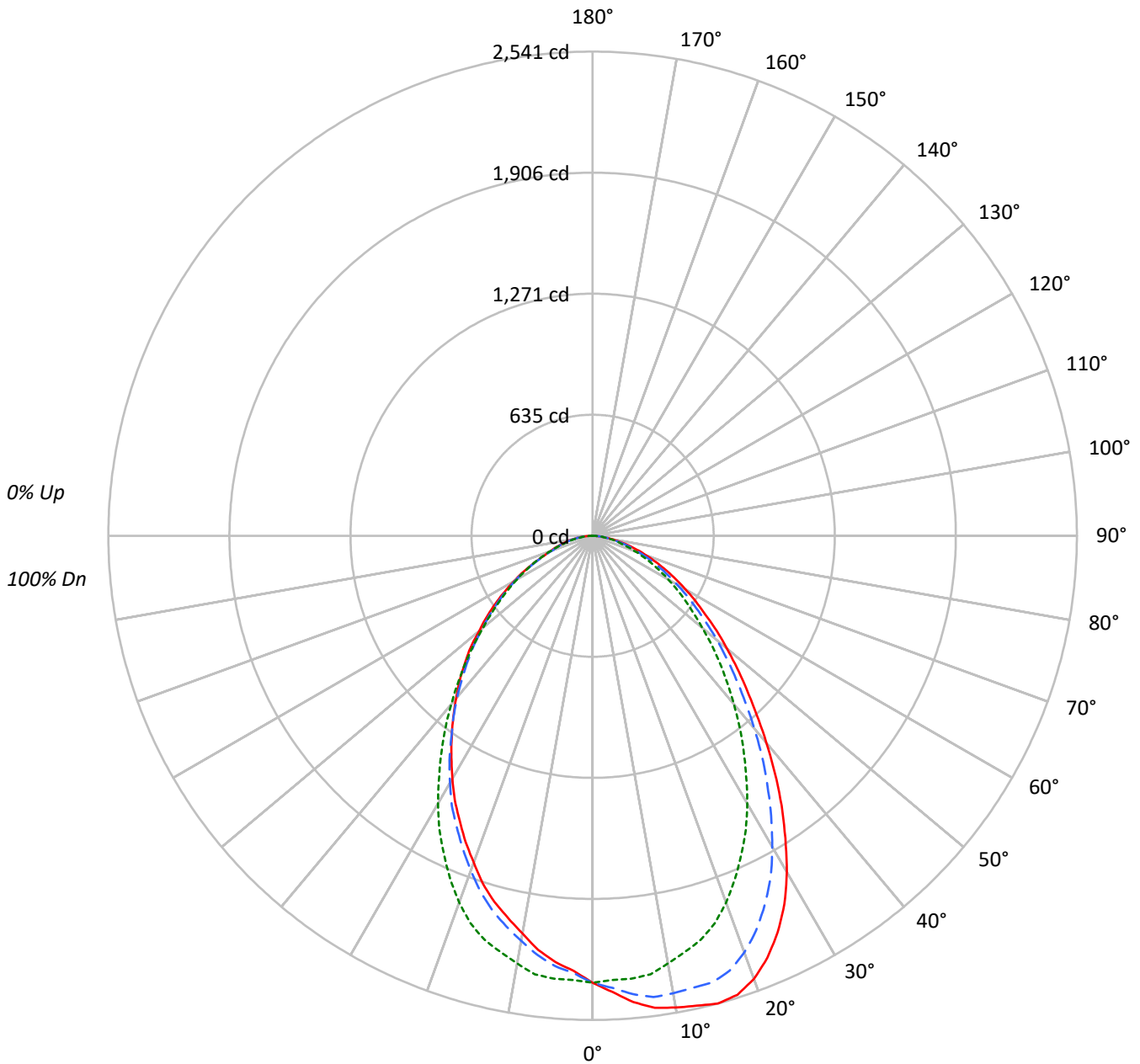
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58								
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46								
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	289270	289270	289270
5°	304168	288889	278068
10°	314837	285441	265452
15°	324465	280243	254117
20°	324820	268719	239474
25°	312628	251153	224533
30°	290295	231102	209681
35°	260212	208068	194019
40°	228321	185652	179356
45°	199556	164372	165419
50°	176195	143861	149042
55°	155371	127544	134017
60°	138887	112886	117351
65°	122990	99291	99291
70°	107470	84678	84678
75°	91835	71724	80350
80°	72666	64213	72666
85°	46986	55336	68214



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.2	4.9
10°-20°	625.7	13.8
20°-30°	876.6	19.3
30°-40°	903.2	19.9
40°-50°	768.9	16.9
50°-60°	569.7	12.5
60°-70°	357.5	7.9
70°-80°	177.6	3.9
80°-90°	46.6	1.0
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°	1724.6	37.9
0°-40°	2627.7	57.8
0°-60°	3966.3	87.2
0°-90°	4548.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4548.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2345	2345	2345	2345	2345	
5°	2457	2414	2333	2267	2246	236
15°	2541	2426	2195	2035	1990	714
25°	2297	2137	1845	1686	1650	1051
35°	1728	1599	1382	1292	1288	1078
45°	1144	1066	942	924	948	888
55°	722	665	593	605	623	653
65°	421	379	340	334	340	420
75°	193	172	150	162	169	206
85°	33	33	39	45	48	43
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°	2345.2	2345.2	2345.2	2345.2	2345.2	2345.2	2345.2	2345.2	2345.2
2.5°	2396.4	2387.3	2375.3	2354.2	2333.2	2315.1	2297.1	2288.0	2285.0
5°	2456.6	2438.5	2414.5	2375.3	2333.2	2297.1	2266.9	2251.8	2245.8
7.5°	2498.7	2480.7	2441.6	2381.3	2321.1	2266.9	2218.8	2197.7	2191.7
10°	2513.7	2492.8	2438.5	2357.3	2279.0	2212.8	2158.5	2131.5	2119.4
12.5°	2525.8	2498.7	2429.5	2333.2	2236.8	2155.5	2098.3	2062.2	2053.2
15°	2540.9	2510.8	2426.4	2309.1	2194.6	2098.3	2035.1	2002.0	1990.0
17.5°	2525.8	2492.8	2393.4	2261.0	2131.5	2026.1	1956.9	1926.7	1914.7
20°	2474.6	2438.5	2327.2	2185.6	2047.2	1938.8	1869.5	1839.4	1824.4
22.5°	2396.4	2357.3	2242.8	2092.3	1950.9	1845.4	1779.2	1749.1	1740.1
25°	2297.1	2257.9	2137.4	1983.9	1845.4	1743.1	1685.9	1658.8	1649.8
27.5°	2179.6	2140.5	2023.1	1872.6	1740.1	1643.7	1598.6	1571.5	1565.4
30°	2038.2	1999.0	1884.5	1746.1	1622.6	1532.4	1496.2	1475.2	1472.2
32.5°	1881.6	1848.5	1743.1	1616.6	1499.2	1424.0	1396.9	1381.8	1378.9
35°	1728.1	1691.9	1598.6	1484.2	1381.8	1315.6	1291.6	1288.5	1288.5
37.5°	1571.5	1535.3	1460.1	1354.7	1267.4	1207.2	1198.2	1201.2	1201.2
40°	1418.0	1384.8	1318.6	1231.3	1153.0	1107.9	1104.9	1110.9	1113.9
42.5°	1273.5	1246.3	1186.2	1110.9	1044.6	1008.5	1011.6	1023.5	1032.6
45°	1144.0	1119.9	1065.7	999.5	942.3	915.1	924.3	939.3	948.3
47.5°	1026.6	1005.5	954.3	894.2	846.0	828.0	839.9	858.0	870.0
50°	918.2	900.1	852.0	788.8	749.7	737.6	752.6	770.6	776.7
52.5°	821.9	803.8	752.6	698.5	668.3	662.4	677.4	692.4	701.5
55°	722.5	707.5	665.3	617.1	593.1	590.1	605.2	617.1	623.2
57.5°	641.3	626.2	587.0	544.9	523.8	520.8	535.9	544.9	547.9
60°	563.0	547.9	511.8	472.6	457.6	457.6	466.7	472.6	475.7
62.5°	490.7	475.7	442.5	409.5	397.4	397.4	397.4	400.4	409.5
65°	421.4	409.5	379.3	349.2	340.2	334.1	334.1	334.1	340.2
67.5°	358.3	346.2	322.2	295.1	285.9	276.9	274.0	280.0	280.0
70°	298.0	289.0	265.0	243.9	234.8	225.8	222.8	234.8	234.8
72.5°	243.9	234.8	219.7	198.6	189.6	186.7	192.7	198.6	201.7
75°	192.7	183.6	171.6	159.6	150.5	153.5	162.5	165.6	168.6
77.5°	144.5	141.5	129.5	120.5	120.5	123.4	129.5	135.5	138.5
80°	102.3	99.4	93.3	87.3	90.4	96.3	99.4	105.4	102.3
82.5°	63.2	63.2	60.2	60.2	63.2	69.3	72.3	75.2	78.3
85°	33.2	33.2	33.2	36.1	39.1	42.2	45.1	48.2	48.2
87.5°	9.0	12.1	12.1	15.0	18.0	18.0	21.1	21.1	21.1
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)