

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: P581314

Luminaire Tested: **HC460D010-HM44560835-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581314
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-HM44560835-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4163.1 lumens
Efficiency: N/A
Efficacy: 75.7 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

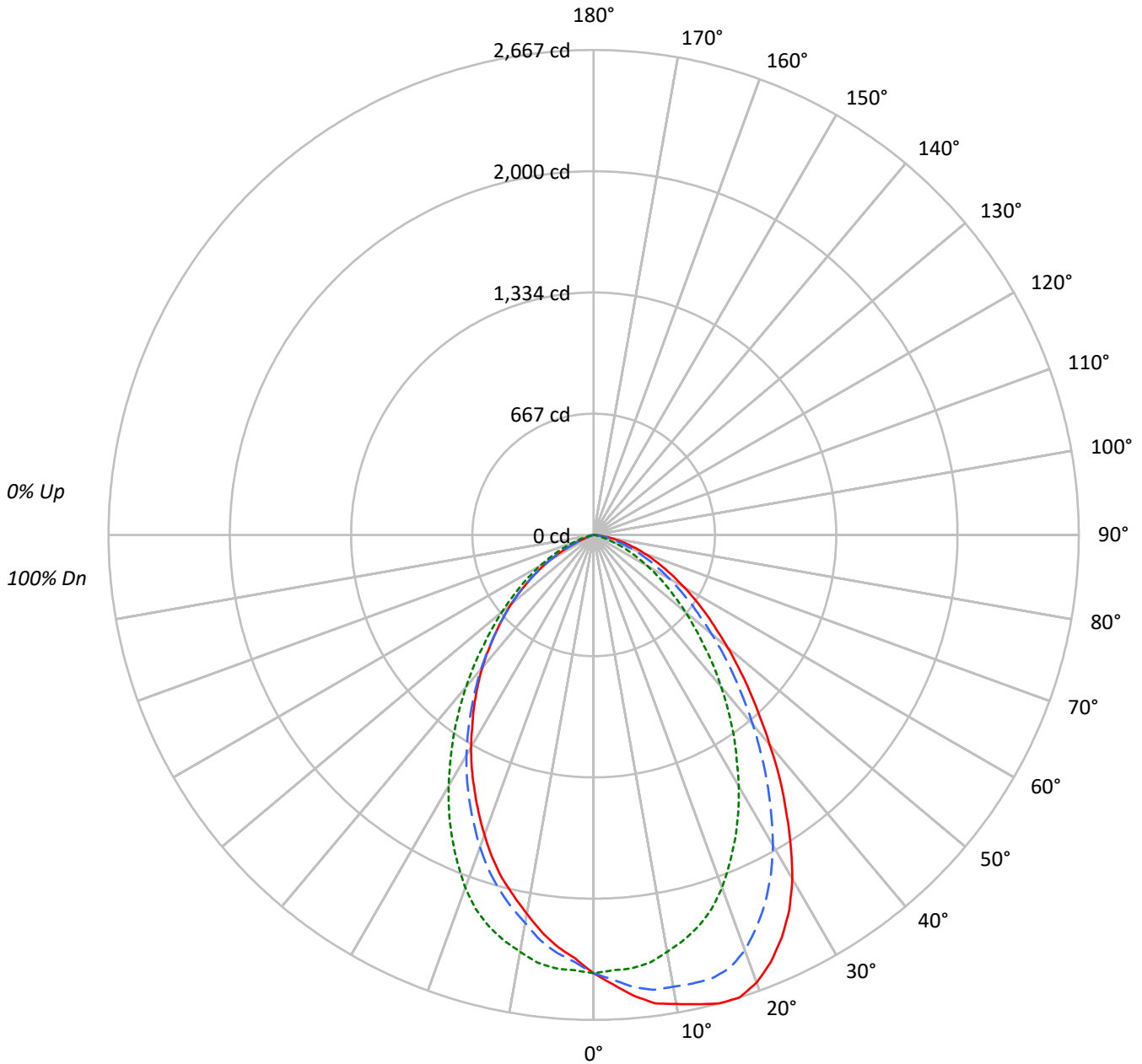
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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								
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°	297288	297288	297288
5°	314978	296306	281436
10°	328063	291566	264938
15°	340606	284572	249111
20°	343814	270911	230404
25°	332689	250554	210896
30°	311047	227058	191906
35°	277213	201849	172411
40°	242346	175540	153449
45°	211104	148917	132764
50°	184197	126322	113811
55°	161457	104685	92147
60°	141255	84566	67643
65°	123048	63042	38029
70°	107542	40788	12370
75°	88213	21255	3288
80°	65776	9802	2415
85°	38777	4812	4812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.5	5.5
10°-20°	636.6	15.3
20°-30°	880.2	21.1
30°-40°	885.1	21.3
40°-50°	714.2	17.2
50°-60°	482.9	11.6
60°-70°	245.8	5.9
70°-80°	78.7	1.9
80°-90°	12.0	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°	1744.3	41.9
0°-40°	2629.4	63.2
0°-60°	3826.5	91.9
0°-90°	4163.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4163.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2410	2410	2410	2410	2410	
5°	2544	2496	2393	2307	2273	245
15°	2667	2523	2228	2016	1951	751
25°	2444	2232	1841	1615	1550	1119
35°	1841	1663	1340	1173	1145	1150
45°	1210	1083	854	761	761	938
55°	751	648	487	425	428	675
65°	422	343	216	140	130	423
75°	185	130	45	10	7	200
85°	27	14	3	3	3	37
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°	2410.2	2410.2	2410.2	2410.2	2410.2	2410.2	2410.2	2410.2	2410.2
2.5°	2475.3	2461.5	2447.9	2423.8	2396.4	2369.0	2351.9	2338.1	2331.4
5°	2543.9	2526.7	2495.8	2444.5	2393.1	2345.0	2307.3	2283.3	2273.0
7.5°	2598.7	2574.7	2523.3	2451.3	2372.4	2297.1	2249.0	2214.7	2201.1
10°	2619.3	2591.8	2523.3	2427.3	2327.9	2235.4	2166.8	2132.5	2115.3
12.5°	2643.2	2612.4	2526.7	2406.7	2283.3	2173.5	2094.7	2050.1	2033.0
15°	2667.3	2626.1	2523.3	2375.9	2228.5	2101.6	2015.8	1971.3	1950.8
17.5°	2667.3	2619.3	2495.8	2324.5	2156.4	2022.7	1926.7	1875.3	1858.2
20°	2619.3	2564.4	2430.7	2242.1	2063.9	1919.9	1827.4	1775.9	1755.3
22.5°	2543.9	2482.2	2338.1	2142.7	1954.1	1813.6	1721.1	1673.0	1652.5
25°	2444.5	2382.7	2231.9	2029.6	1841.0	1700.5	1614.7	1570.2	1549.6
27.5°	2327.9	2259.3	2108.5	1906.2	1721.1	1587.3	1508.5	1467.3	1450.2
30°	2183.9	2118.7	1971.3	1772.4	1594.2	1470.8	1398.8	1361.0	1347.4
32.5°	2015.8	1961.0	1817.1	1631.9	1463.9	1350.8	1285.7	1254.8	1241.0
35°	1841.0	1789.6	1662.8	1491.3	1340.5	1234.3	1172.6	1151.9	1145.0
37.5°	1676.4	1631.9	1508.5	1350.8	1213.6	1121.1	1066.2	1052.5	1045.7
40°	1505.1	1474.2	1361.0	1217.1	1090.2	1008.0	963.4	953.0	953.0
42.5°	1350.8	1316.5	1217.1	1086.8	973.7	891.3	860.6	850.3	853.7
45°	1210.2	1175.9	1083.3	963.4	853.7	785.1	761.1	761.1	761.1
47.5°	1079.9	1049.0	963.4	839.9	750.8	696.0	671.9	671.9	675.4
50°	959.9	939.4	843.4	737.1	658.3	606.9	589.7	586.2	593.1
52.5°	846.8	822.8	737.1	641.2	565.7	524.5	507.4	504.0	507.4
55°	750.8	723.4	647.9	555.4	486.8	445.7	425.1	421.6	428.5
57.5°	658.3	637.7	558.8	476.6	411.4	370.2	353.2	346.3	349.7
60°	572.6	551.9	480.0	401.1	342.8	301.7	277.7	270.8	274.2
62.5°	493.7	476.6	408.0	332.5	274.2	236.5	212.5	195.4	202.3
65°	421.6	404.5	342.8	267.4	216.0	174.8	140.5	126.9	130.3
67.5°	359.9	339.4	281.1	212.5	161.1	116.5	78.8	72.0	72.0
70°	298.2	277.7	226.3	164.6	113.1	61.7	34.3	34.3	34.3
72.5°	240.0	222.9	174.8	123.4	72.0	27.4	13.8	13.8	13.8
75°	185.1	171.5	130.3	85.7	44.6	13.8	10.3	6.9	6.9
77.5°	137.2	123.4	92.6	58.3	27.4	6.9	6.9	6.9	6.9
80°	92.6	82.2	61.7	34.3	13.8	3.4	3.4	3.4	3.4
82.5°	54.8	48.1	34.3	17.1	6.9	3.4	3.4	3.4	3.4
85°	27.4	20.5	13.8	6.9	3.4	3.4	3.4	3.4	3.4
87.5°	6.9	3.4	3.4	3.4	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)