

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: P581370

Luminaire Tested: **HC460D010-HM44560930-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581370
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-HM44560930-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4369.4 lumens
Efficiency: N/A
Efficacy: 79.4 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

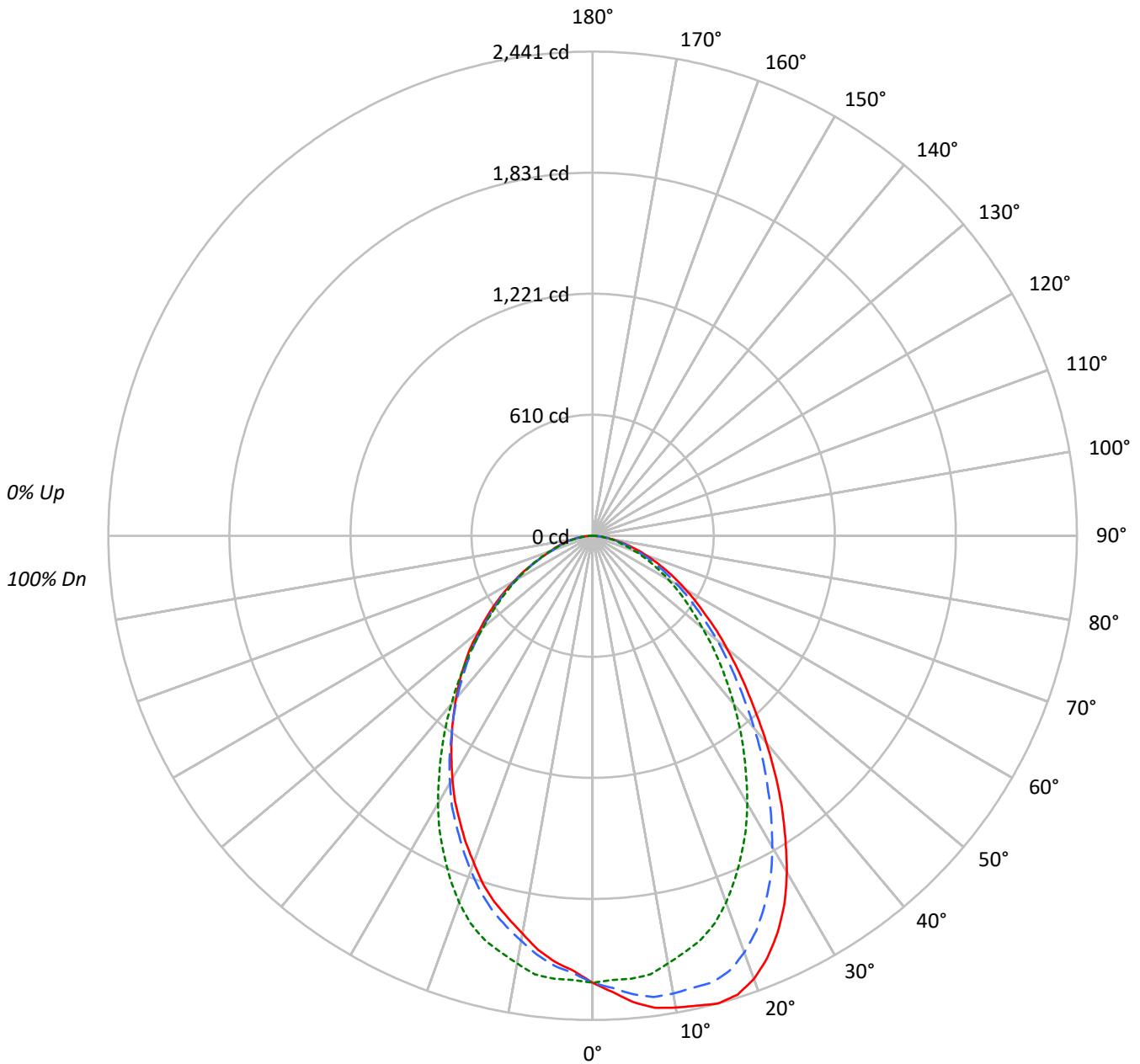
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	277910	277910	277910
5°	292220	277523	267147
10°	302475	274219	255031
15°	311708	269249	244118
20°	312062	258152	230062
25°	300339	241300	215713
30°	278887	222030	201435
35°	249988	199891	186400
40°	219352	178358	172304
45°	191706	157900	158930
50°	169268	138181	143190
55°	149285	122534	128748
60°	133435	108445	112738
65°	118204	95380	95380
70°	103251	81360	81360
75°	88213	68912	77204
80°	69895	61585	69895
85°	45004	53213	65384



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.5	4.9
10°-20°	601.1	13.8
20°-30°	842.2	19.3
30°-40°	867.7	19.9
40°-50°	738.7	16.9
50°-60°	547.3	12.5
60°-70°	343.5	7.9
70°-80°	170.7	3.9
80°-90°	44.8	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°	1656.8	37.9
0°-40°	2524.5	57.8
0°-60°	3810.5	87.2
0°-90°	4369.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4369.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2253	2253	2253	2253	2253	
5°	2360	2320	2241	2178	2158	227
15°	2441	2331	2108	1955	1912	686
25°	2207	2054	1773	1620	1585	1009
35°	1660	1536	1328	1241	1238	1035
45°	1099	1024	905	888	911	853
55°	694	639	570	581	599	628
65°	405	364	327	321	327	404
75°	185	165	145	156	162	198
85°	32	32	38	43	46	41
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°	2253.1	2253.1	2253.1	2253.1	2253.1	2253.1	2253.1	2253.1	2253.1
2.5°	2302.2	2293.6	2281.9	2261.8	2241.4	2224.1	2206.8	2198.1	2195.2
5°	2360.1	2342.7	2319.6	2281.9	2241.4	2206.8	2177.8	2163.4	2157.6
7.5°	2400.6	2383.2	2345.6	2287.8	2229.9	2177.8	2131.6	2111.3	2105.5
10°	2415.0	2394.7	2342.7	2264.6	2189.4	2125.8	2073.7	2047.7	2036.2
12.5°	2426.6	2400.6	2334.1	2241.4	2149.0	2070.9	2015.8	1981.2	1972.5
15°	2441.0	2412.1	2331.1	2218.3	2108.5	2015.8	1955.2	1923.4	1911.7
17.5°	2426.6	2394.7	2299.3	2172.1	2047.7	1946.5	1879.9	1851.0	1839.4
20°	2377.4	2342.7	2235.7	2099.8	1966.7	1862.6	1796.1	1767.1	1752.7
22.5°	2302.2	2264.6	2154.7	2010.1	1874.2	1773.0	1709.3	1680.4	1671.7
25°	2206.8	2169.1	2053.5	1906.0	1773.0	1674.6	1619.7	1593.6	1585.0
27.5°	2094.0	2056.3	1943.5	1798.9	1671.7	1579.2	1535.8	1509.7	1504.0
30°	1958.1	1920.4	1810.6	1677.4	1558.9	1472.2	1437.4	1417.2	1414.3
32.5°	1807.6	1775.8	1674.6	1553.1	1440.3	1368.0	1342.0	1327.5	1324.6
35°	1660.2	1625.4	1535.8	1425.9	1327.5	1263.9	1240.8	1237.9	1237.9
37.5°	1509.7	1475.1	1402.8	1301.5	1217.7	1159.8	1151.1	1154.1	1154.1
40°	1362.3	1330.5	1266.7	1182.9	1107.7	1064.4	1061.4	1067.2	1070.1
42.5°	1223.4	1197.4	1139.5	1067.2	1003.6	969.0	971.8	983.4	992.1
45°	1099.0	1075.9	1023.9	960.3	905.2	879.3	888.0	902.4	911.1
47.5°	986.2	966.0	916.8	859.0	812.7	795.4	807.0	824.3	835.8
50°	882.1	864.7	818.5	757.8	720.1	708.6	723.0	740.4	746.2
52.5°	789.6	772.2	723.0	671.0	642.1	636.3	650.7	665.2	673.9
55°	694.2	679.6	639.2	592.9	569.8	566.9	581.4	592.9	598.7
57.5°	616.0	601.6	564.0	523.5	503.2	500.4	514.8	523.5	526.4
60°	540.9	526.4	491.7	454.1	439.6	439.6	448.3	454.1	457.0
62.5°	471.4	457.0	425.1	393.3	381.8	381.8	381.8	384.6	393.3
65°	405.0	393.3	364.5	335.5	326.8	321.0	321.0	321.0	326.8
67.5°	344.2	332.6	309.5	283.5	274.8	266.1	263.2	269.0	269.0
70°	286.3	277.6	254.5	234.3	225.6	216.9	214.0	225.6	225.6
72.5°	234.3	225.6	211.2	190.9	182.2	179.4	185.1	190.9	193.8
75°	185.1	176.4	164.9	153.3	144.6	147.5	156.2	159.0	162.0
77.5°	138.9	135.9	124.4	115.7	115.7	118.6	124.4	130.2	133.0
80°	98.4	95.4	89.7	83.9	86.7	92.5	95.4	101.2	98.4
82.5°	60.7	60.7	57.9	57.9	60.7	66.6	69.4	72.3	75.2
85°	31.8	31.8	31.8	34.7	37.6	40.5	43.4	46.2	46.2
87.5°	8.7	11.6	11.6	14.4	17.4	17.4	20.2	20.2	20.2
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)