

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: P582664

Luminaire Tested: **HC645D010-HM64560930-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582664
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560930-61WWW
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4194.9 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.06 / 1.14
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

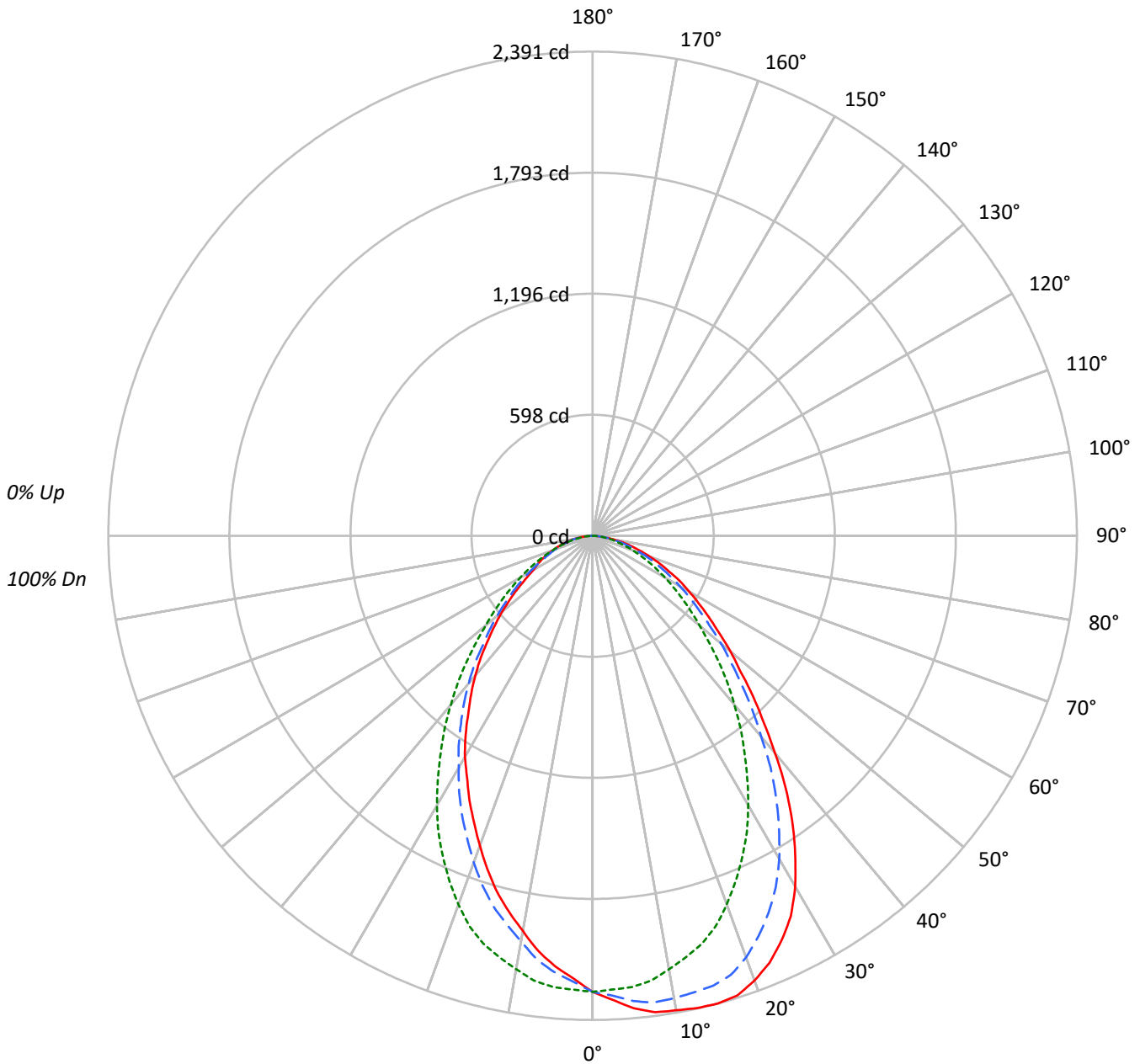
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	93	91	89	87																			
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76																			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58																			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51																			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46																			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42																			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38																			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34																			
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	123450	123450	123450
5°	128934	123090	117422
10°	132446	120973	110346
15°	135722	118343	103383
20°	136331	112984	94957
25°	133465	105780	87078
30°	126627	97268	79816
35°	115014	87428	71601
40°	100209	77867	64421
45°	86714	68139	56626
50°	75742	58676	49627
55°	66922	51563	42579
60°	60149	45194	36883
65°	53858	39317	35776
70°	48101	33515	33515
75°	41748	28255	31454
80°	33464	23930	28697
85°	22895	20945	24782



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.6	5.0
10°-20°	588.3	14.0
20°-30°	819.9	19.5
30°-40°	844.8	20.1
40°-50°	700.2	16.7
50°-60°	503.2	12.0
60°-70°	320.4	7.6
70°-80°	164.6	3.9
80°-90°	41.8	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°	1619.9	38.6
0°-40°	2464.7	58.8
0°-60°	3668.1	87.4
0°-90°	4194.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4194.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2252	2252	2252	2252	2252	
5°	2343	2306	2237	2164	2134	225
15°	2391	2300	2085	1894	1822	674
25°	2206	2055	1749	1524	1440	1011
35°	1719	1579	1306	1134	1070	1068
45°	1118	1040	879	767	730	866
55°	700	643	540	479	446	631
65°	415	370	303	264	276	416
75°	197	170	133	140	148	210
85°	36	33	33	36	39	47
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°	2251.9	2251.9	2251.9	2251.9	2251.9	2251.9	2251.9	2251.9	2251.9
2.5°	2294.4	2285.4	2273.2	2261.1	2242.9	2221.7	2203.5	2197.4	2188.3
5°	2343.0	2330.8	2306.5	2276.2	2236.8	2197.4	2164.1	2142.8	2133.8
7.5°	2373.2	2358.1	2324.7	2273.2	2215.6	2158.0	2109.5	2079.3	2067.1
10°	2379.3	2364.1	2318.7	2248.9	2173.2	2094.4	2033.7	1997.4	1982.3
12.5°	2388.3	2367.1	2309.5	2227.8	2130.8	2039.8	1964.1	1918.6	1903.4
15°	2391.4	2367.1	2300.5	2200.4	2085.2	1976.2	1894.3	1839.7	1821.6
17.5°	2379.3	2352.0	2273.2	2152.0	2021.7	1906.5	1809.5	1751.9	1727.6
20°	2336.9	2306.5	2215.6	2079.3	1936.7	1815.6	1715.5	1654.9	1627.7
22.5°	2282.3	2242.9	2139.8	1994.3	1845.8	1718.6	1618.5	1557.9	1530.6
25°	2206.5	2170.2	2055.0	1900.4	1748.8	1615.5	1524.5	1460.9	1439.6
27.5°	2118.6	2076.2	1958.0	1803.4	1648.8	1515.4	1427.5	1369.9	1342.7
30°	2000.4	1961.0	1842.8	1688.2	1536.6	1412.4	1321.5	1272.9	1260.9
32.5°	1861.0	1827.7	1712.5	1567.0	1421.4	1306.4	1230.6	1179.0	1166.9
35°	1718.6	1679.1	1579.1	1442.7	1306.4	1203.3	1133.6	1088.1	1069.9
37.5°	1564.0	1527.6	1442.7	1321.5	1200.2	1103.2	1042.7	1003.3	985.1
40°	1400.3	1373.0	1294.2	1197.2	1088.1	1003.3	951.7	918.3	900.2
42.5°	1248.8	1221.4	1166.9	1076.0	985.1	909.3	863.8	833.5	818.4
45°	1118.5	1094.2	1039.6	960.8	878.9	815.4	766.8	745.6	730.4
47.5°	988.0	975.9	927.5	854.8	779.0	724.4	691.0	666.9	654.7
50°	888.1	872.9	827.4	751.7	688.0	645.6	615.2	594.0	581.9
52.5°	785.0	769.8	727.4	663.8	612.2	572.9	542.5	524.3	512.2
55°	700.2	688.0	642.6	585.0	539.5	506.1	478.9	457.7	445.5
57.5°	621.3	609.3	566.8	512.2	472.8	442.5	418.3	400.1	385.0
60°	548.6	539.5	497.1	445.5	412.2	381.9	360.7	345.6	336.4
62.5°	484.9	466.7	430.4	385.0	354.6	330.3	309.2	300.1	306.2
65°	415.2	406.1	369.7	330.3	303.1	278.8	263.7	269.8	275.8
67.5°	357.6	345.6	315.2	278.8	254.5	236.4	227.3	239.4	242.5
70°	300.1	288.0	260.6	230.4	209.1	197.1	197.1	206.1	209.1
72.5°	245.5	236.4	212.2	187.9	172.8	163.6	169.7	175.8	178.8
75°	197.1	187.9	169.7	148.5	133.4	133.4	139.5	145.5	148.5
77.5°	151.6	145.5	127.3	112.1	106.0	106.0	112.1	115.2	118.2
80°	106.0	100.1	90.9	81.9	75.8	81.9	87.9	87.9	90.9
82.5°	69.7	66.6	60.6	54.5	54.5	57.6	60.6	63.7	63.7
85°	36.4	36.4	33.3	30.3	33.3	36.4	36.4	39.4	39.4
87.5°	12.1	12.1	12.1	12.1	15.1	15.1	15.1	15.1	15.1
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)