

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: P582826

Luminaire Tested: **HC650D010-HM64560935-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582826
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: HC650D010-HM64560935-61WWW
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4491.7 lumens
Efficiency: N/A
Efficacy: 93.6 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

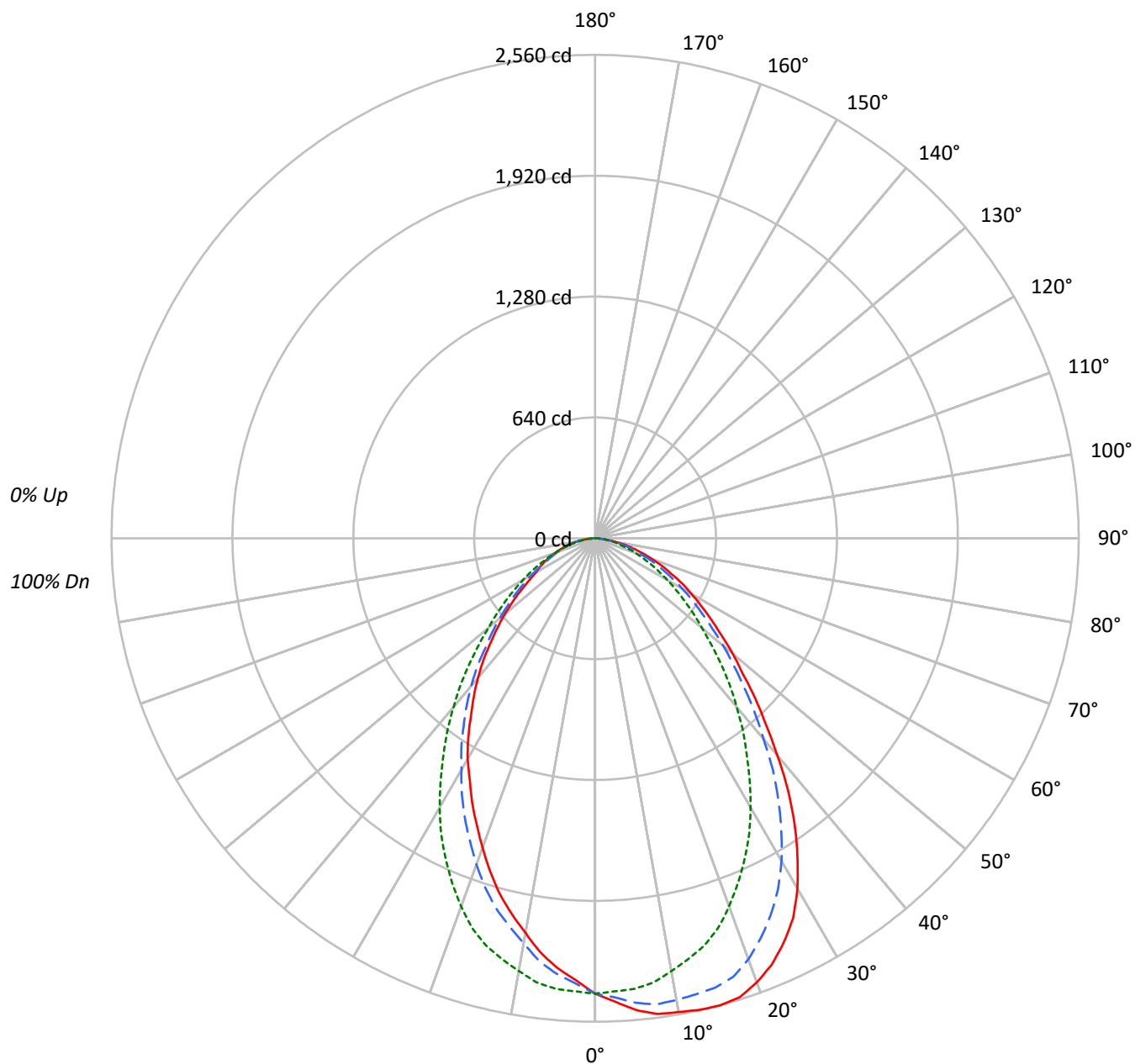
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	132182	132182	132182
5°	138053	131801	125732
10°	141809	129529	118151
15°	145319	126720	110693
20°	145974	120976	101666
25°	142907	113269	93247
30°	135584	104155	85456
35°	123145	93612	76667
40°	107294	83378	68972
45°	92839	72961	60642
50°	81089	62829	53141
55°	71653	55205	45590
60°	64403	48384	39492
65°	57672	42093	38318
70°	51483	35887	35887
75°	44670	30246	33678
80°	35863	25603	30717
85°	24531	22455	26543



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.6	5.0
10°-20°	630.0	14.0
20°-30°	877.9	19.5
30°-40°	904.6	20.1
40°-50°	749.7	16.7
50°-60°	538.8	12.0
60°-70°	343.1	7.6
70°-80°	176.2	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°	1734.5	38.6
0°-40°	2639.1	58.8
0°-60°	3927.5	87.4
0°-90°	4491.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4491.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2411	2411	2411	2411	2411	
5°	2509	2470	2395	2317	2285	241
15°	2560	2463	2233	2028	1950	722
25°	2363	2200	1873	1632	1542	1083
35°	1840	1691	1399	1214	1146	1143
45°	1198	1113	941	821	782	927
55°	750	688	578	513	477	675
65°	445	396	324	282	295	445
75°	211	182	143	149	159	225
85°	39	36	36	39	42	50
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°	2411.2	2411.2	2411.2	2411.2	2411.2	2411.2	2411.2	2411.2	2411.2
2.5°	2456.7	2446.9	2434.0	2421.0	2401.6	2378.8	2359.4	2352.9	2343.1
5°	2508.7	2495.7	2469.7	2437.2	2395.1	2352.9	2317.1	2294.4	2284.8
7.5°	2541.0	2524.9	2489.2	2434.0	2372.3	2310.6	2258.8	2226.3	2213.3
10°	2547.5	2531.4	2482.7	2408.1	2326.9	2242.5	2177.6	2138.7	2122.5
12.5°	2557.3	2534.5	2472.9	2385.3	2281.5	2184.1	2103.0	2054.2	2038.1
15°	2560.5	2534.5	2463.2	2356.1	2232.8	2116.0	2028.4	1969.9	1950.4
17.5°	2547.5	2518.4	2434.0	2304.1	2164.7	2041.4	1937.4	1875.8	1849.8
20°	2502.2	2469.7	2372.3	2226.3	2073.7	1943.9	1836.8	1772.0	1742.7
22.5°	2443.7	2401.6	2291.1	2135.4	1976.4	1840.1	1733.0	1668.0	1638.9
25°	2362.6	2323.6	2200.3	2034.9	1872.6	1729.8	1632.4	1564.2	1541.6
27.5°	2268.5	2223.0	2096.5	1930.9	1765.5	1622.7	1528.6	1466.9	1437.6
30°	2141.9	2099.7	1973.1	1807.6	1645.4	1512.3	1415.0	1363.0	1350.0
32.5°	1992.6	1956.9	1833.6	1677.8	1522.1	1398.8	1317.6	1262.4	1249.5
35°	1840.1	1798.0	1690.8	1544.7	1398.8	1288.4	1213.7	1165.1	1145.6
37.5°	1674.5	1635.7	1544.7	1415.0	1285.2	1181.4	1116.4	1074.2	1054.8
40°	1499.3	1470.1	1385.8	1281.9	1165.1	1074.2	1019.1	983.3	963.8
42.5°	1337.1	1307.8	1249.5	1152.1	1054.8	973.6	925.0	892.5	876.2
45°	1197.5	1171.6	1113.1	1028.8	941.1	873.0	821.0	798.4	782.2
47.5°	1057.9	1044.9	993.1	915.2	834.0	775.7	739.9	713.9	701.0
50°	950.8	934.6	886.0	804.9	736.7	691.2	658.8	636.1	623.1
52.5°	840.5	824.3	778.9	710.7	655.6	613.4	580.9	561.4	548.5
55°	749.7	736.7	688.1	626.4	577.6	542.0	512.8	490.0	477.0
57.5°	665.3	652.3	606.9	548.5	506.3	473.8	447.8	428.3	412.2
60°	587.4	577.6	532.3	477.0	441.3	408.9	386.2	370.0	360.2
62.5°	519.3	499.8	460.8	412.2	379.7	353.7	331.0	321.2	327.7
65°	444.6	434.8	395.9	353.7	324.5	298.6	282.4	288.9	295.4
67.5°	383.0	370.0	337.5	298.6	272.6	253.1	243.4	256.4	259.6
70°	321.2	308.4	279.1	246.6	223.9	210.9	210.9	220.7	223.9
72.5°	262.9	253.1	227.2	201.2	184.9	175.3	181.8	188.3	191.4
75°	210.9	201.2	181.8	159.0	142.8	142.8	149.3	155.8	159.0
77.5°	162.3	155.8	136.3	120.1	113.6	113.6	120.1	123.3	126.6
80°	113.6	107.1	97.3	87.6	81.1	87.6	94.1	94.1	97.3
82.5°	74.6	71.5	65.0	58.5	58.5	61.6	65.0	68.1	68.1
85°	39.0	39.0	35.7	32.5	35.7	39.0	39.0	42.2	42.2
87.5°	13.0	13.0	13.0	13.0	16.2	16.2	16.2	16.2	16.2
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)