

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: P593371

Luminaire Tested: **HC650D010-HM64560950-61RWWC**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593371
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC650D010-HM64560950-61RWWC
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4988.2 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.15 / 1.2
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

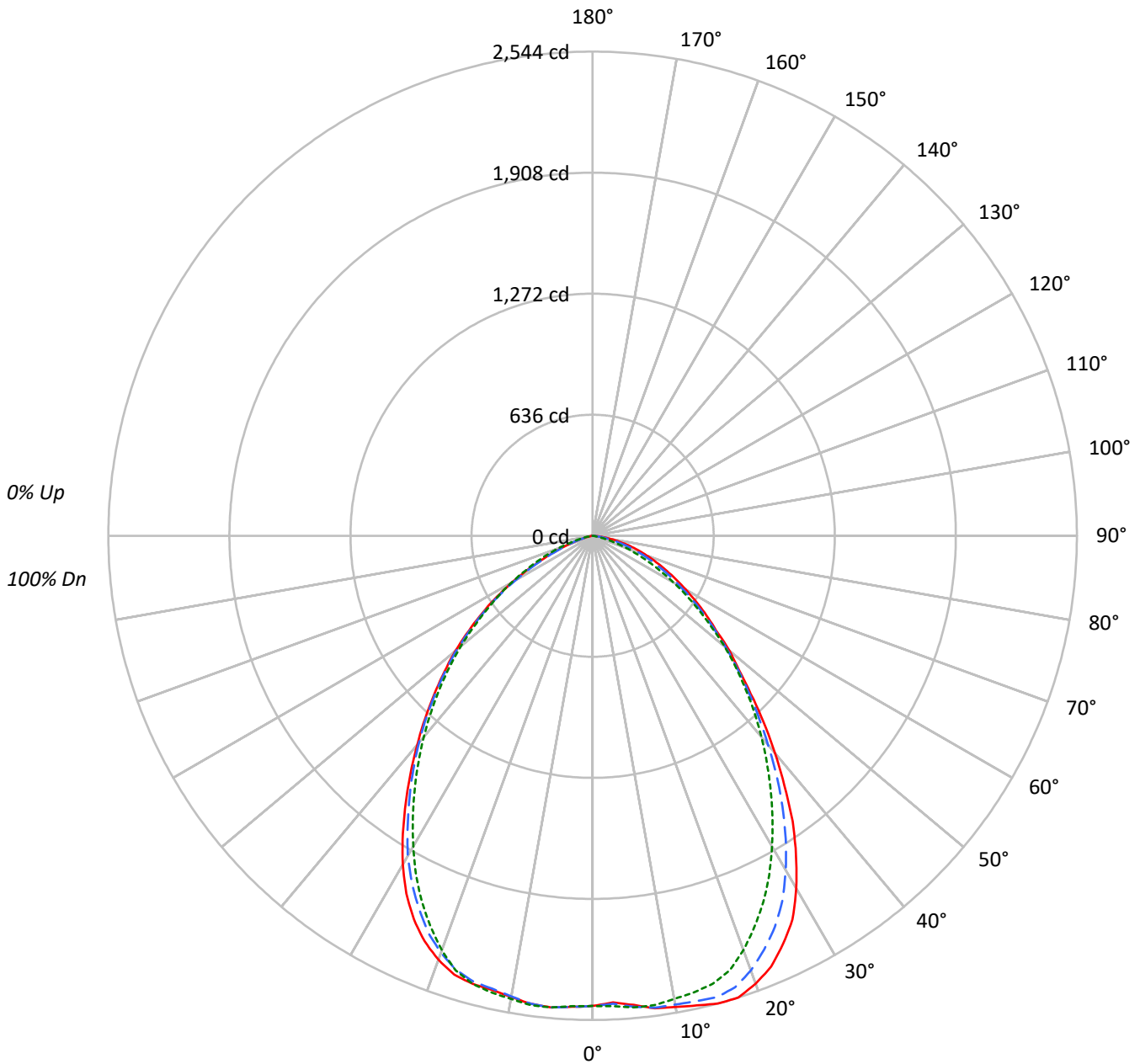
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			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			100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88			88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77			77
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	69	68			68
4	88	78	70	64	86	76	69	64	74	68	63	72	67	62	70	65	61	60			60
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			53
6	76	64	56	50	74	63	56	50	62	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			35
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	135450	135450	135450
5°	136154	136886	136886
10°	139961	137539	136977
15°	144411	138327	138327
20°	146097	135158	138285
25°	143180	128390	134469
30°	135426	119316	126311
35°	122563	109118	114492
40°	106614	98714	102542
45°	91102	87986	91102
50°	79955	77089	80236
55°	69761	64963	67524
60°	61673	53954	53230
65°	54727	42560	36476
70°	48293	30053	21991
75°	41133	17008	10633
80°	30654	5304	3157
85°	16857	2076	2076



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.0	4.8
10°-20°	693.4	13.9
20°-30°	1012.8	20.3
30°-40°	1062.2	21.3
40°-50°	894.8	17.9
50°-60°	627.0	12.6
60°-70°	336.1	6.7
70°-80°	112.7	2.3
80°-90°	12.3	0.2
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°	1943.2	39.0
0°-40°	3005.4	60.2
0°-60°	4527.2	90.8
0°-90°	4988.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4988.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2471	2471	2471	2471	2471	
5°	2474	2484	2488	2488	2488	238
15°	2544	2511	2437	2424	2437	718
25°	2367	2267	2123	2160	2223	1084
35°	1831	1738	1630	1677	1711	1137
45°	1175	1155	1135	1165	1175	915
55°	730	706	680	693	706	657
65°	422	385	328	271	281	421
75°	194	151	80	50	50	206
85°	27	13	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°	2470.8	2470.8	2470.8	2470.8	2470.8	2470.8	2470.8	2470.8	2470.8
2.5°	2454.1	2454.1	2460.7	2467.5	2474.2	2474.2	2477.5	2480.8	2477.5
5°	2474.2	2474.2	2484.2	2487.5	2487.5	2484.2	2487.5	2487.5	2487.5
7.5°	2504.3	2497.6	2501.0	2494.3	2487.5	2484.2	2480.8	2480.8	2480.8
10°	2514.3	2507.6	2501.0	2487.5	2470.8	2460.7	2457.4	2460.7	2460.7
12.5°	2527.7	2521.1	2504.3	2477.5	2457.4	2440.7	2437.3	2444.1	2444.1
15°	2544.5	2537.7	2511.0	2467.5	2437.3	2420.6	2424.0	2430.6	2437.3
17.5°	2544.5	2531.1	2487.5	2430.6	2393.8	2377.1	2390.5	2407.2	2417.3
20°	2504.3	2491.0	2430.6	2360.3	2316.8	2306.7	2330.2	2360.3	2370.4
22.5°	2450.7	2424.0	2353.6	2270.0	2223.1	2223.1	2256.5	2293.4	2306.7
25°	2367.1	2347.0	2266.6	2169.5	2122.6	2119.3	2159.5	2209.7	2223.1
27.5°	2273.3	2246.5	2159.5	2059.1	2008.8	2012.2	2055.6	2105.8	2119.3
30°	2139.4	2105.8	2028.8	1931.8	1884.9	1898.3	1941.8	1978.6	1995.4
32.5°	1988.7	1958.6	1888.3	1797.8	1757.7	1771.1	1807.9	1841.4	1854.8
35°	1831.4	1797.8	1737.6	1657.3	1630.5	1643.8	1677.4	1704.2	1710.8
37.5°	1653.9	1630.5	1586.9	1523.4	1503.3	1519.9	1546.8	1563.5	1570.3
40°	1489.8	1469.8	1432.9	1386.0	1379.4	1392.8	1419.6	1429.6	1432.9
42.5°	1329.1	1312.4	1288.9	1255.5	1255.5	1268.9	1292.4	1299.0	1302.4
45°	1175.1	1165.1	1155.0	1128.3	1134.9	1151.7	1165.1	1175.1	1175.1
47.5°	1041.2	1044.6	1031.1	1011.1	1017.8	1034.6	1044.6	1054.6	1054.6
50°	937.5	927.4	914.0	893.9	903.9	917.4	930.7	937.5	940.8
52.5°	816.9	813.6	803.6	780.1	786.8	793.5	806.9	816.9	820.2
55°	729.9	719.8	706.5	679.7	679.7	686.4	693.0	699.7	706.5
57.5°	646.1	636.1	616.0	585.9	582.6	582.6	579.2	585.9	595.9
60°	562.5	559.1	529.0	502.2	492.1	482.1	468.7	472.0	485.5
62.5°	488.8	482.1	455.3	421.9	401.8	385.0	368.2	364.9	378.3
65°	421.9	415.1	385.0	351.6	328.1	298.0	271.2	271.2	281.2
67.5°	361.6	348.2	321.4	284.6	254.5	217.7	190.8	197.6	200.9
70°	301.3	291.2	261.1	224.3	187.5	150.7	133.9	137.2	137.2
72.5°	247.8	234.3	204.2	167.3	130.6	97.1	90.3	87.0	87.0
75°	194.2	180.8	150.7	113.8	80.3	56.9	50.2	50.2	50.2
77.5°	140.7	130.6	103.8	70.3	43.6	26.8	23.4	20.1	20.1
80°	97.1	87.0	63.7	36.8	16.8	10.0	10.0	10.0	10.0
82.5°	56.9	46.9	30.1	16.8	6.7	3.3	3.3	3.3	3.3
85°	26.8	20.1	13.3	6.7	3.3	3.3	3.3	3.3	3.3
87.5°	3.3	3.3	3.3	0.0	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)