

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: P582711

Luminaire Tested: **HC650D010-HM64560827-61RWWH**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582711
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC650D010-HM64560827-61RWWH
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4827.4 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

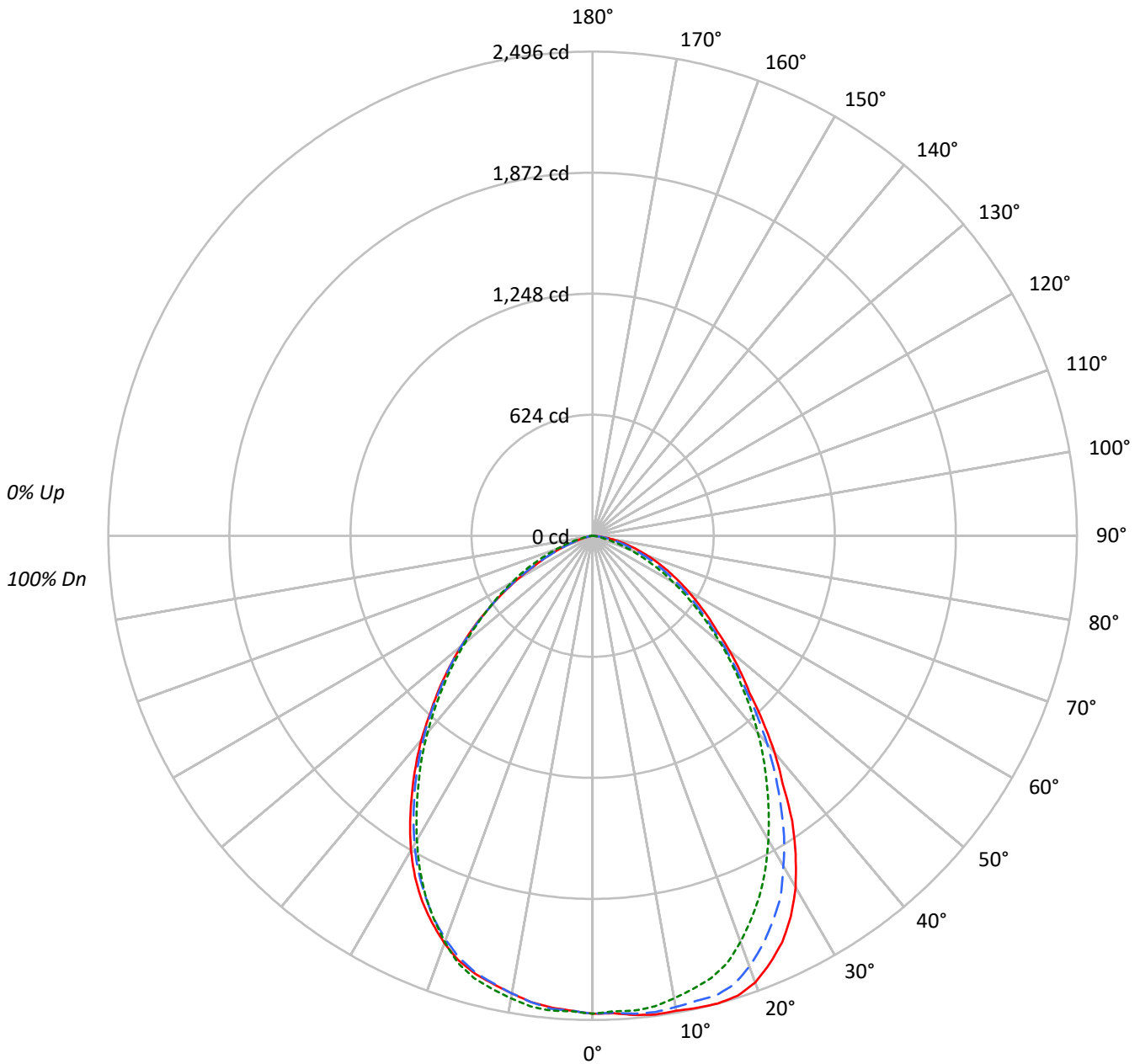
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	92	90	88			88
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			77
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			59
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	61	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	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°	135055	135055	135055
5°	136457	135219	134327
10°	138396	134800	133364
15°	141652	133957	132674
20°	142970	129978	130345
25°	139835	123431	125777
30°	132444	114663	118544
35°	119926	104802	108690
40°	104446	94735	98198
45°	88614	83861	86862
50°	78479	73243	75179
55°	69121	62650	62344
60°	61947	52748	48505
65°	55285	42300	34764
70°	48646	30534	21734
75°	41027	18470	12306
80°	31601	8177	5114
85°	18304	2013	2013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.8	4.8
10°-20°	672.1	13.9
20°-30°	971.6	20.1
30°-40°	1022.3	21.2
40°-50°	859.4	17.8
50°-60°	603.2	12.5
60°-70°	331.8	6.9
70°-80°	117.8	2.4
80°-90°	15.4	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°	1877.5	38.9
0°-40°	2899.8	60.1
0°-60°	4362.4	90.4
0°-90°	4827.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4827.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2464	2464	2464	2464	2464	
5°	2480	2473	2457	2448	2441	237
15°	2496	2454	2360	2331	2338	704
25°	2312	2196	2041	2044	2079	1058
35°	1792	1689	1566	1598	1624	1111
45°	1143	1111	1082	1108	1120	897
55°	723	684	656	656	652	651
65°	426	381	326	268	268	424
75°	194	155	87	58	58	208
85°	29	16	3	3	3	40
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°	2463.6	2463.6	2463.6	2463.6	2463.6	2463.6	2463.6	2463.6	2463.6
2.5°	2463.6	2463.6	2460.4	2460.4	2453.9	2453.9	2450.7	2450.7	2450.7
5°	2479.7	2479.7	2473.3	2463.6	2457.2	2447.5	2447.5	2444.2	2441.0
7.5°	2489.4	2486.2	2476.6	2463.6	2447.5	2431.3	2424.8	2428.1	2424.8
10°	2486.2	2479.7	2466.9	2441.0	2421.6	2399.1	2395.8	2392.6	2395.8
12.5°	2492.6	2482.9	2457.2	2424.8	2392.6	2366.7	2363.5	2363.5	2366.7
15°	2495.9	2486.2	2453.9	2405.5	2360.3	2334.5	2331.2	2334.5	2337.7
17.5°	2486.2	2473.3	2424.8	2360.3	2308.6	2282.8	2282.8	2289.3	2295.7
20°	2450.7	2431.3	2363.5	2286.1	2228.0	2208.6	2215.0	2228.0	2234.3
22.5°	2386.1	2363.5	2286.1	2198.9	2137.5	2121.3	2137.5	2153.7	2160.0
25°	2311.8	2286.1	2195.6	2105.3	2040.6	2021.3	2043.8	2069.7	2079.4
27.5°	2211.8	2182.7	2098.8	1995.4	1930.8	1921.1	1947.0	1976.0	1982.5
30°	2092.3	2060.0	1966.4	1869.5	1811.4	1808.1	1837.2	1863.0	1872.7
32.5°	1947.0	1917.9	1837.2	1740.3	1688.7	1688.7	1717.8	1740.3	1750.0
35°	1792.0	1759.7	1688.7	1607.9	1566.0	1569.2	1598.2	1614.4	1624.1
37.5°	1607.9	1598.2	1543.4	1475.5	1446.5	1453.0	1475.5	1488.5	1498.2
40°	1459.5	1433.6	1398.1	1343.2	1323.8	1330.3	1352.8	1365.8	1372.2
42.5°	1298.0	1281.9	1252.8	1214.1	1201.1	1210.8	1230.2	1239.9	1236.6
45°	1143.0	1139.8	1110.7	1088.2	1081.7	1094.6	1107.5	1117.2	1120.4
47.5°	1030.0	1017.1	991.2	975.2	968.7	981.5	994.5	1000.9	1000.9
50°	920.2	907.4	881.5	865.3	858.8	871.8	881.5	887.9	881.5
52.5°	810.4	797.5	775.0	755.6	752.3	758.8	762.0	765.3	771.7
55°	723.2	710.4	684.5	662.0	655.5	658.6	655.5	655.5	652.3
57.5°	639.3	626.4	600.5	574.8	565.0	561.8	552.1	548.9	545.6
60°	565.0	548.9	523.1	494.0	481.1	468.1	452.1	442.4	442.4
62.5°	494.0	477.8	448.8	423.0	403.5	381.0	355.1	342.3	342.3
65°	426.2	413.4	381.0	351.9	326.1	297.0	268.0	261.6	268.0
67.5°	361.6	348.7	316.4	287.3	255.1	219.5	193.7	193.7	200.2
70°	303.5	290.6	261.6	226.0	190.5	154.9	135.6	135.6	135.6
72.5°	248.6	235.7	203.4	171.1	135.6	100.1	90.5	93.7	90.5
75°	193.7	184.0	154.9	119.5	87.2	61.3	58.1	54.9	58.1
77.5°	145.3	135.6	109.8	77.5	48.4	35.5	32.2	32.2	32.2
80°	100.1	90.5	71.0	45.2	25.9	16.2	16.2	16.2	16.2
82.5°	61.3	51.6	38.7	22.6	9.7	9.7	9.7	9.7	9.7
85°	29.1	22.6	16.2	6.5	3.2	3.2	3.2	3.2	3.2
87.5°	6.5	6.5	3.2	3.2	0.0	3.2	3.2	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)