

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: P582819

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

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582819
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-HM64560935-61RWWH
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4851.9 lumens
Efficiency: N/A
Efficacy: 101.1 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

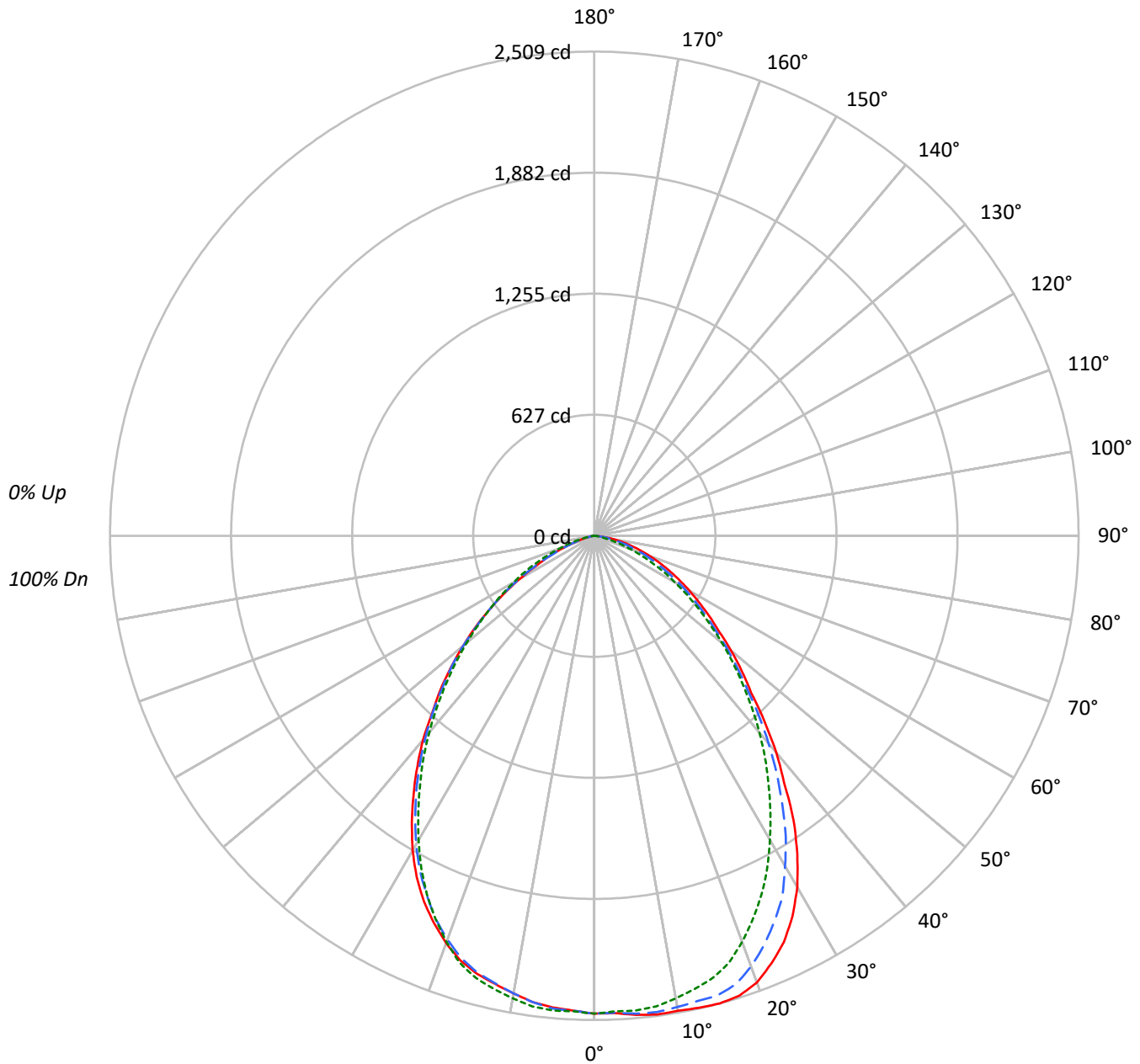
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	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
1	111	107	104	101	108	105	102	99		101	98	96		97	95	93		93	92	90
2	103	96	90	85	100	94	89	84		91	86	83		87	84	81		85	82	79
3	95	86	79	74	93	84	78	73		82	76	72		79	74	70		77	73	69
4	88	78	70	64	86	76	69	64		74	68	63		72	66	62		70	65	61
5	82	70	62	57	80	69	62	56		67	61	56		65	60	55		64	59	55
6	76	64	56	50	74	63	56	50		61	55	50		60	54	49		58	53	49
7	71	59	51	45	69	58	50	45		56	50	45		55	49	44		54	48	44
8	66	54	46	41	65	53	46	41		52	45	41		51	45	40		50	44	40
9	62	50	42	37	61	49	42	37		48	42	37		47	41	37		46	41	37
10	59	46	39	34	57	46	39	34		45	38	34		44	38	34		43	38	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	135740	135740	135740
5°	137156	135901	135010
10°	139103	135485	134038
15°	142373	134638	133349
20°	143693	130631	131011
25°	140548	124060	126413
30°	133115	115246	119151
35°	120535	105330	109245
40°	104968	95214	98699
45°	89064	84280	87304
50°	78872	73618	75563
55°	69474	62966	62660
60°	62265	53011	48746
65°	55557	42508	34945
70°	48902	30678	21847
75°	41239	18554	12391
80°	31759	8208	5114
85°	18367	2013	2013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.0	4.8
10°-20°	675.5	13.9
20°-30°	976.5	20.1
30°-40°	1027.5	21.2
40°-50°	863.8	17.8
50°-60°	606.2	12.5
60°-70°	333.5	6.9
70°-80°	118.4	2.4
80°-90°	15.5	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°	1887.0	38.9
0°-40°	2914.5	60.1
0°-60°	4384.5	90.4
0°-90°	4851.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4851.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2476	2476	2476	2476	2476	
5°	2492	2486	2470	2460	2453	238
15°	2509	2466	2372	2343	2350	708
25°	2324	2207	2051	2054	2090	1063
35°	1801	1697	1574	1606	1632	1116
45°	1149	1116	1087	1113	1126	901
55°	727	688	659	659	656	654
65°	428	383	328	269	269	426
75°	195	156	88	58	58	209
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°	2476.1	2476.1	2476.1	2476.1	2476.1	2476.1	2476.1	2476.1	2476.1
2.5°	2476.1	2476.1	2472.9	2472.9	2466.4	2466.4	2463.1	2463.1	2463.1
5°	2492.4	2492.4	2485.9	2476.1	2469.6	2459.9	2459.9	2456.6	2453.4
7.5°	2502.1	2498.9	2489.1	2476.1	2459.9	2443.6	2437.2	2440.4	2437.2
10°	2498.9	2492.4	2479.4	2453.4	2433.9	2411.2	2407.9	2404.8	2407.9
12.5°	2505.4	2495.6	2469.6	2437.2	2404.8	2378.8	2375.5	2375.5	2378.8
15°	2508.6	2498.9	2466.4	2417.7	2372.3	2346.3	2343.1	2346.3	2349.6
17.5°	2498.9	2485.9	2437.2	2372.3	2320.3	2294.3	2294.3	2300.8	2307.3
20°	2463.1	2443.6	2375.5	2297.6	2239.2	2219.7	2226.2	2239.2	2245.7
22.5°	2398.3	2375.5	2297.6	2210.0	2148.4	2132.2	2148.4	2164.5	2171.0
25°	2323.6	2297.6	2206.8	2115.9	2051.0	2031.6	2054.2	2080.2	2089.9
27.5°	2223.0	2193.8	2109.4	2005.6	1940.6	1930.9	1956.9	1986.1	1992.6
30°	2102.9	2070.4	1976.4	1879.0	1820.6	1817.3	1846.5	1872.5	1882.3
32.5°	1956.9	1927.6	1846.5	1749.2	1697.2	1697.2	1726.5	1749.2	1758.9
35°	1801.1	1768.7	1697.2	1616.1	1573.9	1577.2	1606.4	1622.6	1632.4
37.5°	1616.1	1606.4	1551.2	1483.1	1453.8	1460.3	1483.1	1496.1	1505.8
40°	1466.8	1440.9	1405.2	1350.0	1330.5	1337.0	1359.8	1372.8	1379.2
42.5°	1304.5	1288.4	1259.2	1220.2	1207.2	1217.0	1236.4	1246.2	1242.9
45°	1148.8	1145.6	1116.4	1093.6	1087.1	1100.1	1113.1	1122.9	1126.1
47.5°	1035.3	1022.3	996.3	980.1	973.6	986.6	999.5	1006.0	1006.0
50°	924.8	912.0	886.0	869.7	863.2	876.2	886.0	892.5	886.0
52.5°	814.5	801.5	778.9	759.4	756.2	762.7	765.9	769.1	775.6
55°	726.9	713.9	687.9	665.3	658.8	662.1	658.8	658.8	655.6
57.5°	642.6	629.6	603.6	577.6	567.9	564.6	555.0	551.6	548.5
60°	567.9	551.6	525.8	496.5	483.5	470.5	454.3	444.6	444.6
62.5°	496.5	480.3	451.1	425.2	405.7	382.9	357.0	344.0	344.0
65°	428.3	415.4	382.9	353.7	327.7	298.6	269.4	262.9	269.4
67.5°	363.5	350.5	318.0	288.9	256.4	220.7	194.7	194.7	201.2
70°	305.1	292.1	262.9	227.2	191.4	155.8	136.3	136.3	136.3
72.5°	249.9	236.9	204.4	172.0	136.3	100.6	90.8	94.1	90.8
75°	194.7	184.9	155.8	120.1	87.6	61.6	58.5	55.2	58.5
77.5°	146.1	136.3	110.3	77.8	48.7	35.7	32.5	32.5	32.5
80°	100.6	90.8	71.5	45.5	26.0	16.2	16.2	16.2	16.2
82.5°	61.6	52.0	39.0	22.7	9.7	9.7	9.7	9.7	9.7
85°	29.2	22.7	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)