

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: P582801

Luminaire Tested: **HC650D010-HM64560930-61RWWH**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582801
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-HM64560930-61RWWH
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4795.5 lumens
Efficiency: N/A
Efficacy: 99.9 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

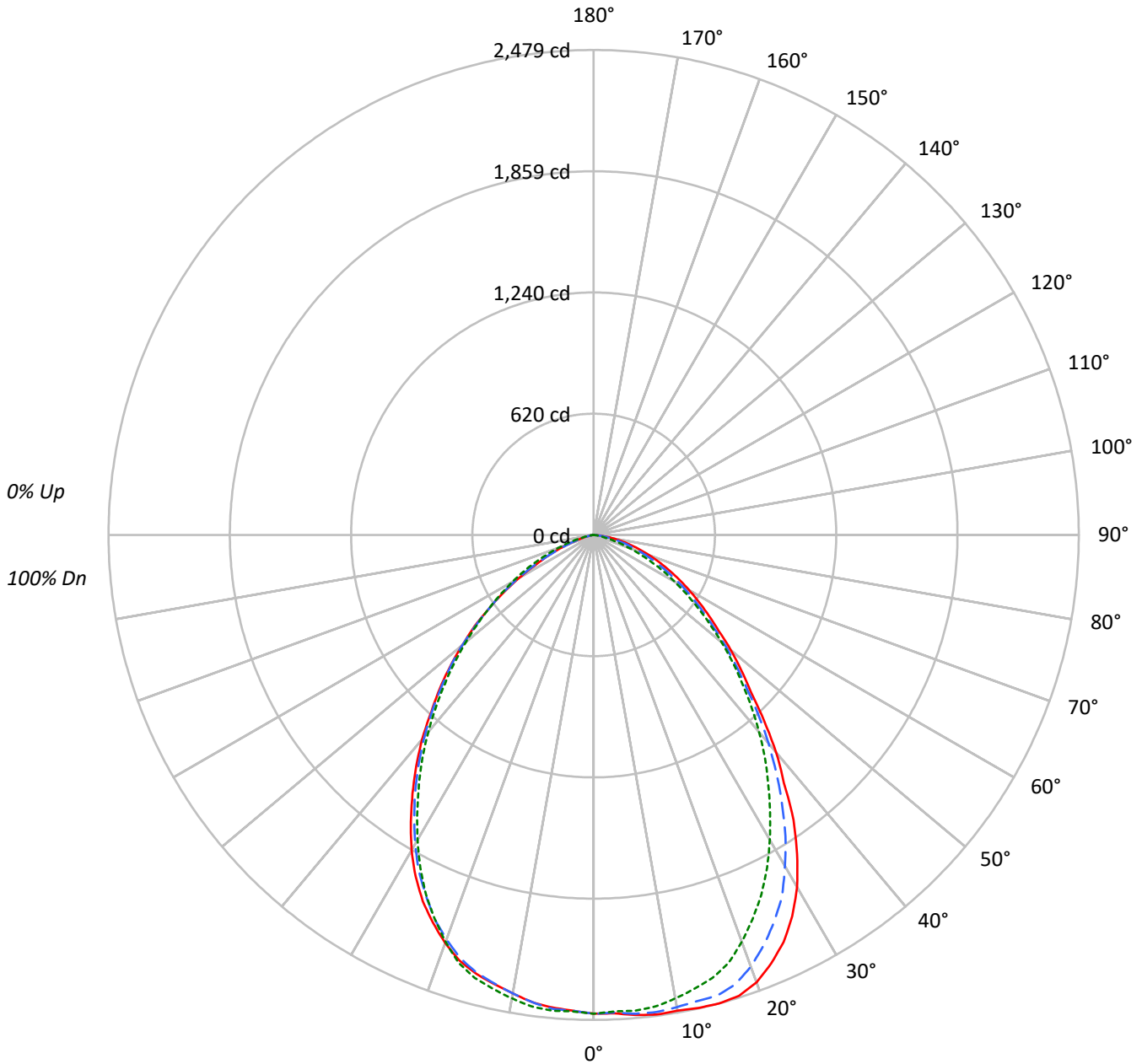
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P582801

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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°	134167	134167	134167
5°	135560	134322	133441
10°	137484	133915	132485
15°	140716	133077	131800
20°	142025	129115	129488
25°	138915	122620	124949
30°	131565	113910	117765
35°	119136	104106	107974
40°	103752	94105	97554
45°	88032	83303	86288
50°	77959	72765	74684
55°	68671	62230	61924
60°	61541	52408	48187
65°	54922	42015	34530
70°	48325	30326	21606
75°	40773	18343	12243
80°	31380	8082	5083
85°	18115	2013	2013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.3	4.8
10°-20°	667.7	13.9
20°-30°	965.2	20.1
30°-40°	1015.5	21.2
40°-50°	853.7	17.8
50°-60°	599.2	12.5
60°-70°	329.6	6.9
70°-80°	117.0	2.4
80°-90°	15.3	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°	1865.1	38.9
0°-40°	2880.7	60.1
0°-60°	4333.6	90.4
0°-90°	4795.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4795.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2447	2447	2447	2447	2447	
5°	2463	2457	2441	2431	2425	235
15°	2479	2438	2345	2316	2322	700
25°	2297	2181	2027	2030	2066	1051
35°	1780	1678	1556	1588	1613	1103
45°	1136	1103	1074	1100	1113	891
55°	718	680	651	651	648	647
65°	423	378	324	266	266	421
75°	192	154	87	58	58	207
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°	2447.4	2447.4	2447.4	2447.4	2447.4	2447.4	2447.4	2447.4	2447.4
2.5°	2447.4	2447.4	2444.2	2444.2	2437.7	2437.7	2434.5	2434.5	2434.5
5°	2463.4	2463.4	2457.0	2447.4	2440.9	2431.3	2431.3	2428.1	2424.9
7.5°	2473.0	2469.8	2460.1	2447.4	2431.3	2415.3	2408.9	2412.1	2408.9
10°	2469.8	2463.4	2450.6	2424.9	2405.7	2383.3	2380.0	2376.8	2380.0
12.5°	2476.2	2466.6	2440.9	2408.9	2376.8	2351.1	2347.9	2347.9	2351.1
15°	2479.4	2469.8	2437.7	2389.6	2344.8	2319.0	2315.8	2319.0	2322.3
17.5°	2469.8	2457.0	2408.9	2344.8	2293.4	2267.8	2267.8	2274.1	2280.5
20°	2434.5	2415.3	2347.9	2270.9	2213.2	2193.9	2200.3	2213.2	2219.6
22.5°	2370.4	2347.9	2270.9	2184.4	2123.4	2107.4	2123.4	2139.4	2145.9
25°	2296.6	2270.9	2181.2	2091.3	2027.2	2007.9	2030.4	2056.0	2065.7
27.5°	2197.1	2168.3	2084.9	1982.3	1918.1	1908.5	1934.1	1963.1	1969.4
30°	2078.4	2046.4	1953.4	1857.1	1799.5	1796.2	1825.1	1850.7	1860.4
32.5°	1934.1	1905.3	1825.1	1728.9	1677.5	1677.5	1706.4	1728.9	1738.6
35°	1780.2	1748.1	1677.5	1597.3	1555.6	1558.9	1587.7	1603.8	1613.4
37.5°	1597.3	1587.7	1533.2	1465.9	1437.0	1443.4	1465.9	1478.7	1488.3
40°	1449.8	1424.2	1388.9	1334.3	1315.0	1321.5	1344.0	1356.9	1363.2
42.5°	1289.4	1273.4	1244.5	1206.0	1193.2	1202.8	1222.1	1231.7	1228.5
45°	1135.5	1132.2	1103.4	1081.0	1074.5	1087.3	1100.2	1109.8	1113.0
47.5°	1023.2	1010.3	984.7	968.7	962.3	975.2	987.9	994.3	994.3
50°	914.1	901.3	875.7	859.6	853.2	866.0	875.7	882.1	875.7
52.5°	805.1	792.2	769.8	750.5	747.3	753.8	757.0	760.2	766.6
55°	718.5	705.6	680.0	657.6	651.1	654.4	651.1	651.1	647.9
57.5°	635.1	622.3	596.6	570.9	561.3	558.1	548.5	545.3	542.1
60°	561.3	545.3	519.6	490.7	478.0	465.1	449.0	439.5	439.5
62.5°	490.7	474.8	445.8	420.2	400.9	378.5	352.9	340.0	340.0
65°	423.4	410.5	378.5	349.6	323.9	295.1	266.2	259.8	266.2
67.5°	359.3	346.4	314.4	285.4	253.4	218.1	192.5	192.5	198.9
70°	301.5	288.6	259.8	224.5	189.2	154.0	134.8	134.8	134.8
72.5°	246.9	234.2	202.1	169.9	134.8	99.4	89.8	93.1	89.8
75°	192.5	182.8	154.0	118.7	86.6	60.9	57.8	54.6	57.8
77.5°	144.3	134.8	109.0	77.0	48.1	35.3	32.1	32.1	32.1
80°	99.4	89.8	70.6	44.9	25.6	16.1	16.1	16.1	16.1
82.5°	60.9	51.4	38.5	22.4	9.6	9.6	9.6	9.6	9.6
85°	28.8	22.4	16.1	6.4	3.2	3.2	3.2	3.2	3.2
87.5°	6.4	6.4	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)