

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: P593339

Luminaire Tested: **HC645D010-HM64560950-61WWWB**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593339
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560950-61WWWB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4533.1 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

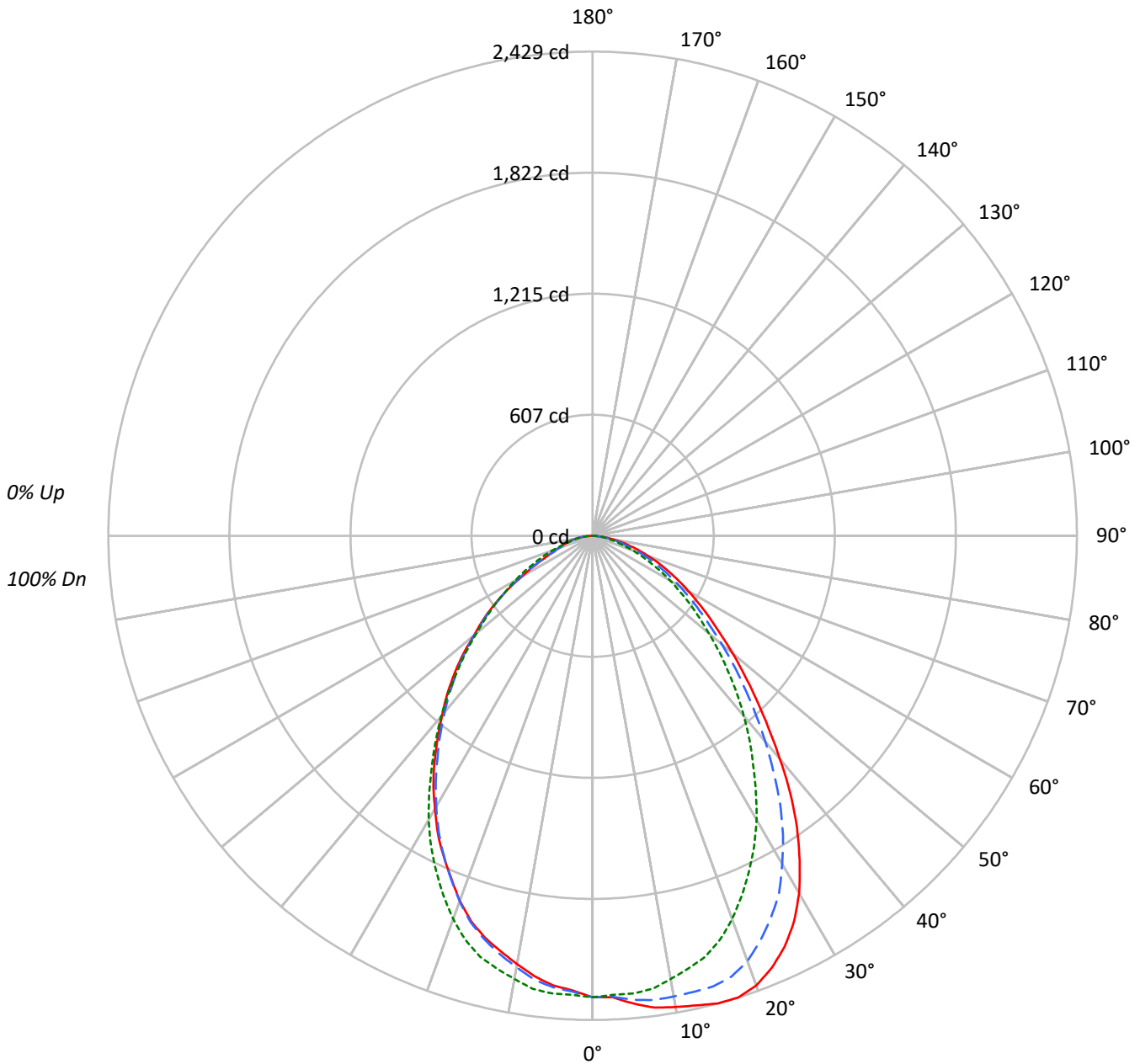
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76				
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66				
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58				58				
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52				52				
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46				46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42				42				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				34				
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31				31				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	126898	126898	126898
5°	129644	126860	124592
10°	133609	125682	121457
15°	137833	124013	118451
20°	140024	119355	113637
25°	137718	112283	107117
30°	131115	104086	100085
35°	119571	93967	92481
40°	104553	84415	83957
45°	89978	74279	76000
50°	78215	64723	66079
55°	68308	56820	57422
60°	60675	49229	45073
65°	54156	41431	34465
70°	47636	33948	28899
75°	40837	26773	27450
80°	32959	22951	26961
85°	21889	19939	23902



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.2	4.8
10°-20°	623.9	13.8
20°-30°	890.7	19.6
30°-40°	932.9	20.6
40°-50°	785.5	17.3
50°-60°	559.1	12.3
60°-70°	327.2	7.2
70°-80°	154.8	3.4
80°-90°	39.8	0.9
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°	1733.7	38.2
0°-40°	2666.7	58.8
0°-60°	4011.2	88.5
0°-90°	4533.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4533.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2315	2315	2315	2315	2315	
5°	2356	2337	2305	2274	2264	226
15°	2429	2340	2185	2097	2087	685
25°	2277	2116	1856	1768	1771	1042
35°	1787	1638	1404	1357	1382	1110
45°	1161	1075	958	961	980	901
55°	715	654	594	594	601	644
65°	418	370	319	269	266	416
75°	193	161	126	123	130	207
85°	35	28	32	38	38	45
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°	2314.8	2314.8	2314.8	2314.8	2314.8	2314.8	2314.8	2314.8	2314.8
2.5°	2318.0	2318.0	2314.8	2311.6	2305.3	2295.8	2289.5	2283.1	2283.1
5°	2355.9	2349.5	2336.9	2321.1	2305.3	2286.3	2273.6	2264.1	2264.1
7.5°	2387.5	2374.9	2349.5	2321.1	2292.6	2267.3	2245.2	2232.6	2229.4
10°	2400.2	2384.4	2346.4	2302.1	2257.8	2223.1	2197.7	2181.9	2181.9
12.5°	2412.7	2393.9	2343.2	2280.0	2223.1	2175.6	2150.3	2137.7	2134.5
15°	2428.6	2403.4	2340.0	2261.0	2185.1	2131.3	2096.6	2087.1	2087.1
17.5°	2428.6	2397.0	2318.0	2219.9	2125.0	2064.9	2033.3	2023.8	2026.9
20°	2400.2	2365.4	2270.5	2150.3	2045.9	1982.7	1951.1	1944.8	1947.9
22.5°	2346.4	2305.3	2197.7	2068.1	1954.2	1887.8	1859.4	1859.4	1856.3
25°	2276.8	2232.6	2115.5	1979.6	1856.3	1789.9	1767.7	1770.9	1770.9
27.5°	2185.1	2140.8	2023.8	1878.3	1755.0	1688.7	1672.8	1679.1	1682.3
30°	2071.3	2023.8	1900.5	1758.2	1644.3	1577.9	1568.4	1577.9	1581.1
32.5°	1932.2	1897.3	1777.2	1631.8	1524.2	1467.3	1464.1	1473.6	1486.3
35°	1786.7	1748.7	1638.1	1505.2	1404.1	1356.6	1356.6	1372.4	1381.9
37.5°	1628.6	1590.6	1489.4	1378.7	1293.3	1249.1	1255.5	1271.2	1274.3
40°	1461.0	1432.5	1347.1	1252.3	1179.6	1144.7	1154.2	1170.1	1173.2
42.5°	1302.9	1277.5	1208.0	1122.6	1068.8	1043.5	1056.2	1075.2	1081.5
45°	1160.6	1132.1	1075.2	1002.4	958.1	945.6	961.3	973.9	980.3
47.5°	1030.8	1005.6	958.1	891.7	860.2	853.8	869.7	876.0	882.2
50°	917.1	891.7	844.3	784.3	758.9	758.9	771.6	777.9	774.8
52.5°	806.3	784.3	739.9	689.4	673.5	673.5	683.0	686.2	692.5
55°	714.7	692.5	654.5	607.1	594.5	588.1	594.5	594.5	600.8
57.5°	629.3	610.3	575.5	531.3	515.4	509.1	505.9	502.7	509.1
60°	553.4	537.6	499.6	461.7	449.0	433.2	420.5	408.0	411.1
62.5°	483.9	468.0	433.2	395.3	382.6	360.5	344.6	328.9	335.2
65°	417.5	401.6	370.0	338.4	319.4	294.1	268.7	259.4	265.7
67.5°	357.3	344.6	313.1	281.4	265.7	237.2	211.8	211.8	215.0
70°	297.2	284.6	259.4	230.8	211.8	186.6	177.1	180.3	180.3
72.5°	243.5	234.0	208.7	183.5	164.5	148.6	148.6	151.8	155.0
75°	192.8	186.6	161.3	139.1	126.4	116.9	123.3	126.4	129.6
77.5°	148.6	139.1	120.1	104.4	94.9	98.1	104.4	107.6	110.7
80°	104.4	101.2	85.4	75.9	72.7	75.9	82.2	85.4	85.4
82.5°	66.4	63.2	53.7	50.6	50.6	53.7	60.1	60.1	60.1
85°	34.8	31.7	28.5	28.5	31.7	34.8	38.0	38.0	38.0
87.5°	12.7	9.5	12.7	12.7	15.8	15.8	15.8	15.8	15.8
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)