

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: P582639

Luminaire Tested: **HC645D010-HM64560927-61RWWH**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582639
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: HC645D010-HM64560927-61RWWH
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3792.9 lumens
Efficiency: N/A
Efficacy: 86.2 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

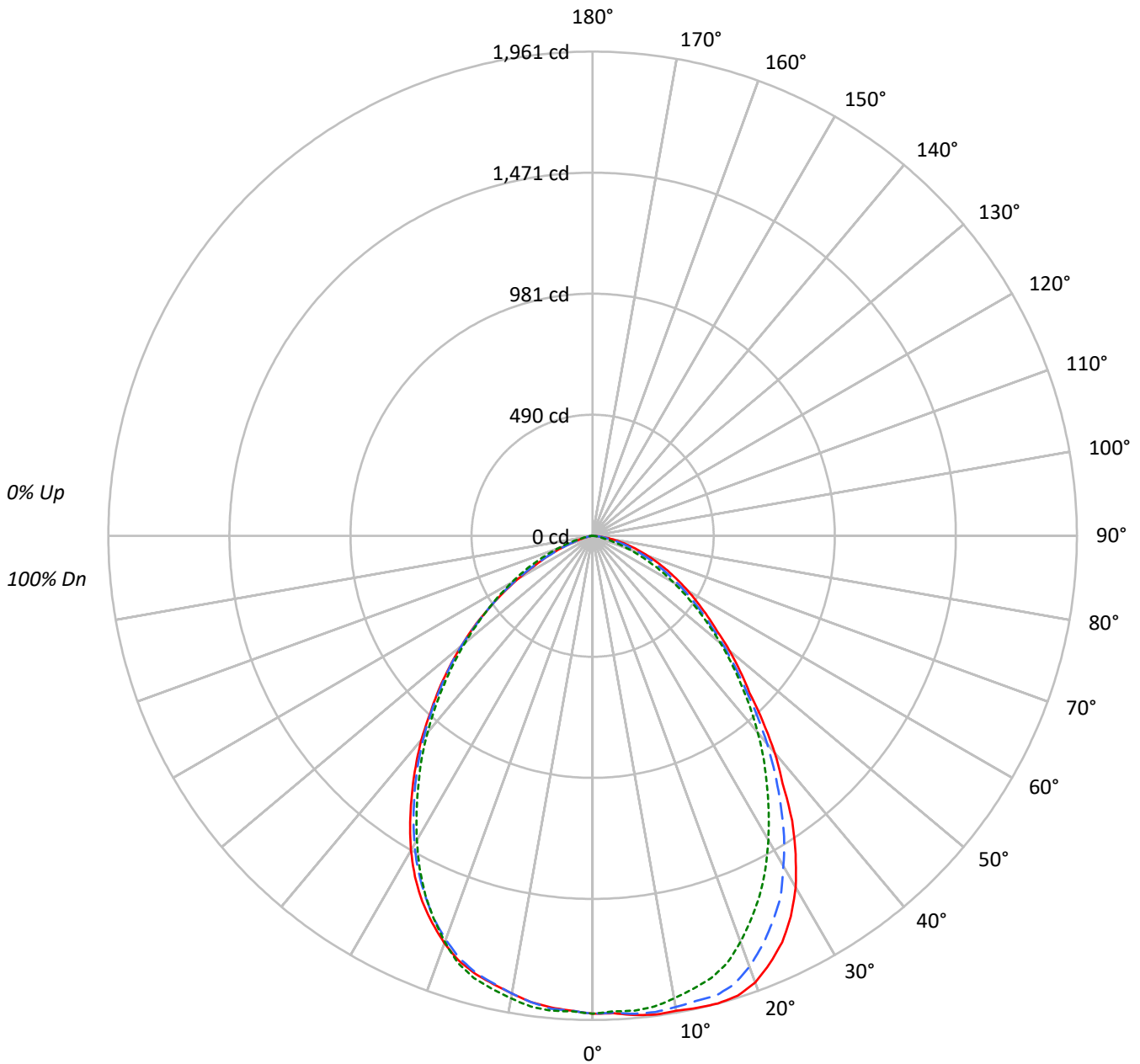
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42			
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	106115	106115	106115
5°	107220	106240	105541
10°	108738	105915	104785
15°	111295	105250	104240
20°	112331	102121	102413
25°	109869	96985	98824
30°	104067	90090	93141
35°	94228	82342	85401
40°	82061	74432	77159
45°	69620	65883	68247
50°	61661	57550	59060
55°	54316	49212	48983
60°	48680	41455	38111
65°	43442	33233	27318
70°	38228	23994	17070
75°	32258	14509	9658
80°	24814	6409	4009
85°	14404	1635	1635



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.7	4.8
10°-20°	528.1	13.9
20°-30°	763.3	20.1
30°-40°	803.2	21.2
40°-50°	675.2	17.8
50°-60°	473.9	12.5
60°-70°	260.7	6.9
70°-80°	92.6	2.4
80°-90°	12.1	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°	1475.2	38.9
0°-40°	2278.4	60.1
0°-60°	3427.5	90.4
0°-90°	3792.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3792.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1936	1936	1936	1936	1936	
5°	1948	1943	1931	1923	1918	186
15°	1961	1928	1854	1832	1837	553
25°	1816	1725	1603	1606	1634	831
35°	1408	1327	1230	1256	1276	873
45°	898	873	850	870	880	705
55°	568	538	515	515	512	511
65°	335	299	256	211	211	333
75°	152	122	68	46	46	163
85°	23	13	3	3	3	31
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°	1935.7	1935.7	1935.7	1935.7	1935.7	1935.7	1935.7	1935.7	1935.7
2.5°	1935.7	1935.7	1933.1	1933.1	1928.1	1928.1	1925.5	1925.5	1925.5
5°	1948.4	1948.4	1943.3	1935.7	1930.6	1923.0	1923.0	1920.4	1917.9
7.5°	1956.0	1953.4	1945.8	1935.7	1923.0	1910.3	1905.2	1907.8	1905.2
10°	1953.4	1948.4	1938.1	1917.9	1902.7	1884.9	1882.4	1879.8	1882.4
12.5°	1958.6	1950.9	1930.6	1905.2	1879.8	1859.6	1857.0	1857.0	1859.6
15°	1961.0	1953.4	1928.1	1890.1	1854.5	1834.2	1831.6	1834.2	1836.7
17.5°	1953.4	1943.3	1905.2	1854.5	1813.9	1793.6	1793.6	1798.7	1803.7
20°	1925.5	1910.3	1857.0	1796.1	1750.5	1735.2	1740.4	1750.5	1755.5
22.5°	1874.8	1857.0	1796.1	1727.6	1679.4	1666.7	1679.4	1692.2	1697.2
25°	1816.4	1796.1	1725.1	1654.0	1603.4	1588.1	1605.8	1626.1	1633.8
27.5°	1737.8	1714.9	1649.0	1567.8	1517.0	1509.4	1529.7	1552.6	1557.6
30°	1644.0	1618.5	1545.0	1468.8	1423.2	1420.6	1443.5	1463.8	1471.4
32.5°	1529.7	1507.0	1443.5	1367.4	1326.8	1326.8	1349.7	1367.4	1375.0
35°	1408.0	1382.6	1326.8	1263.4	1230.4	1232.9	1255.8	1268.5	1276.1
37.5°	1263.4	1255.8	1212.6	1159.4	1136.5	1141.6	1159.4	1169.5	1177.1
40°	1146.7	1126.4	1098.5	1055.3	1040.1	1045.3	1063.0	1073.1	1078.2
42.5°	1019.8	1007.1	984.4	953.9	943.7	951.3	966.6	974.2	971.6
45°	898.0	895.6	872.7	855.0	849.8	860.0	870.1	877.8	880.3
47.5°	809.3	799.2	778.9	766.2	761.0	771.2	781.3	786.5	786.5
50°	723.0	712.8	692.5	679.9	674.8	684.9	692.5	697.7	692.5
52.5°	636.8	626.6	608.9	593.7	591.1	596.1	598.7	601.3	606.3
55°	568.3	558.1	537.8	520.1	514.9	517.5	514.9	514.9	512.5
57.5°	502.3	492.2	471.9	451.6	444.0	441.4	433.8	431.3	428.7
60°	444.0	431.3	411.0	388.1	378.1	367.9	355.2	347.6	347.6
62.5°	388.1	375.5	352.6	332.3	317.1	299.3	279.1	269.0	269.0
65°	334.9	324.7	299.3	276.5	256.2	233.4	210.6	205.5	210.6
67.5°	284.1	274.0	248.7	225.8	200.5	172.5	152.3	152.3	157.3
70°	238.5	228.3	205.5	177.6	149.7	121.8	106.5	106.5	106.5
72.5°	195.3	185.2	159.9	134.4	106.5	78.6	71.1	73.5	71.1
75°	152.3	144.6	121.8	93.8	68.5	48.2	45.6	43.2	45.6
77.5°	114.1	106.5	86.2	60.9	38.0	27.9	25.3	25.3	25.3
80°	78.6	71.1	55.8	35.5	20.3	12.7	12.7	12.7	12.7
82.5°	48.2	40.6	30.5	17.7	7.6	7.6	7.6	7.6	7.6
85°	22.9	17.7	12.7	5.0	2.6	2.6	2.6	2.6	2.6
87.5°	5.0	5.0	2.6	2.6	0.0	2.6	2.6	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)