

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: P582663

Luminaire Tested: **HC645D010-HM64560930-61WWBB**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582663  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC645D010-HM64560930-61WWBB  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3840.2 lumens  
Efficiency: N/A  
Efficacy: 87.3 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.06 / 1.14  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

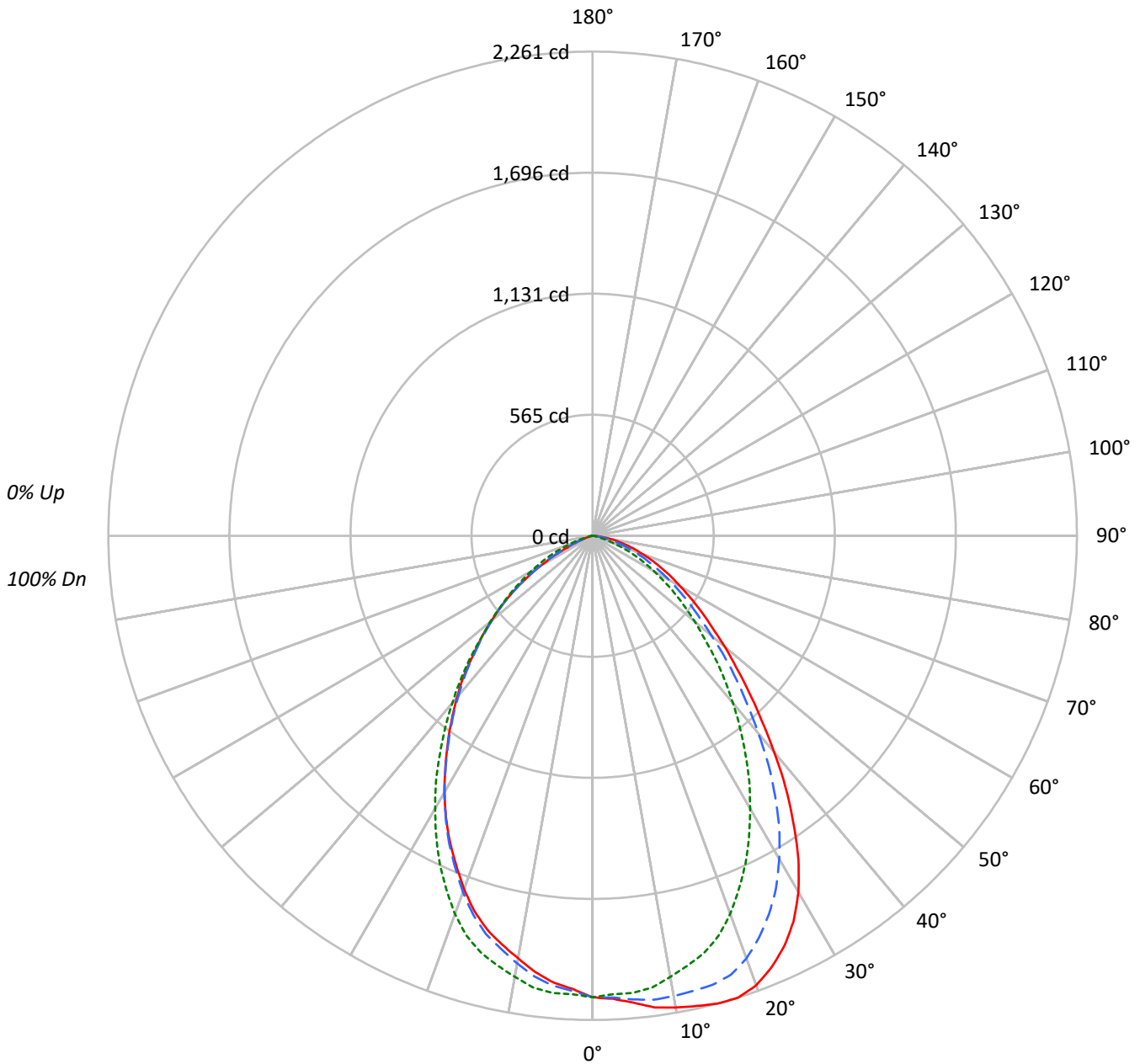
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P582663

CATALOG NUMBER: HC645D010-HM64560930-61WWBB

### Luminous Intensity Polar Plot





TEST NUMBER: P582663

CATALOG NUMBER: HC645D010-HM64560930-61WWBB

**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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78			78
3	96	87	80	75	93	86	79	74	83	77	73	80	76	72	78	74	71	69			69
4	89	79	71	66	87	78	71	65	75	69	64	73	68	64	71	66	63	61			61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54			54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49			49
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44			44
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40			40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37			37
10	60	48	40	36	58	47	40	36	46	40	36	45	40	35	45	39	35	34			34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	118137	118137	118137
5°	120421	117917	115254
10°	124513	116414	111527
15°	128327	114393	108026
20°	130322	109624	102378
25°	127967	102115	95328
30°	121639	93052	87488
35°	109326	83165	78902
40°	94355	72879	70496
45°	79892	62743	61092
50°	68501	52988	52467
55°	59381	44605	42875
60°	51838	36214	30568
65°	45595	27915	16902
70°	39350	18465	8255
75°	33402	9002	3198
80°	25856	3820	1926
85°	15284	1887	1887



TEST NUMBER: P582663

CATALOG NUMBER: HC645D010-HM64560930-61WWBB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.4	5.3
10°-20°	575.1	15.0
20°-30°	809.8	21.1
30°-40°	827.4	21.5
40°-50°	667.1	17.4
50°-60°	447.5	11.7
60°-70°	226.4	5.9
70°-80°	72.4	1.9
80°-90°	11.1	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°	1588.3	41.4
0°-40°	2415.7	62.9
0°-60°	3530.3	91.9
0°-90°	3840.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3840.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2155	2155	2155	2155	2155	
5°	2188	2173	2143	2110	2094	211
15°	2261	2170	2016	1925	1903	638
25°	2116	1949	1688	1585	1576	969
35°	1634	1485	1243	1173	1179	1017
45°	1030	949	809	782	788	801
55°	621	552	467	446	449	559
65°	352	291	215	142	130	351
75°	158	112	42	15	15	169
85°	24	12	3	3	3	33
90°	0	0	0	0	0	



TEST NUMBER: P582663

CATALOG NUMBER: HC645D010-HM64560930-61WWBB

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0	2155.0
2.5°	2164.1	2161.0	2158.1	2152.0	2142.8	2133.8	2127.7	2121.6	2118.7
5°	2188.3	2182.2	2173.2	2161.0	2142.8	2121.6	2109.5	2097.4	2094.4
7.5°	2221.7	2209.6	2185.3	2158.1	2127.7	2097.4	2076.2	2064.1	2055.0
10°	2236.8	2215.6	2182.2	2136.9	2091.3	2055.0	2027.6	2009.5	2003.5
12.5°	2249.0	2224.7	2176.3	2115.6	2055.0	2006.5	1976.2	1961.0	1954.9
15°	2261.1	2236.8	2170.2	2091.3	2015.6	1958.0	1924.7	1909.5	1903.4
17.5°	2261.1	2227.8	2148.9	2048.9	1958.0	1888.3	1855.0	1839.7	1836.8
20°	2233.9	2197.4	2100.5	1982.3	1879.1	1800.4	1770.1	1761.0	1754.9
22.5°	2182.2	2139.8	2030.7	1897.3	1785.2	1709.4	1676.1	1670.0	1664.0
25°	2115.6	2073.2	1948.9	1806.4	1688.2	1612.4	1585.2	1579.1	1576.0
27.5°	2030.7	1985.3	1855.0	1709.4	1582.1	1509.4	1485.1	1485.1	1482.1
30°	1921.6	1870.1	1742.8	1597.3	1470.0	1403.4	1385.2	1385.2	1382.1
32.5°	1788.2	1736.7	1621.6	1482.1	1360.9	1291.2	1276.0	1282.1	1279.0
35°	1633.6	1591.3	1485.1	1348.7	1242.7	1179.0	1173.0	1179.0	1179.0
37.5°	1479.2	1439.7	1348.7	1230.6	1130.5	1072.9	1072.9	1082.1	1079.0
40°	1318.5	1288.2	1203.3	1100.3	1018.4	979.0	972.9	982.0	985.1
42.5°	1166.9	1142.6	1069.9	985.1	912.4	872.9	882.0	888.1	891.1
45°	1030.5	1006.3	948.7	860.7	809.3	782.0	782.0	791.1	788.0
47.5°	909.3	891.1	833.5	748.6	703.2	691.0	697.1	703.2	703.2
50°	803.2	775.9	721.4	654.7	621.3	606.2	612.3	615.2	615.2
52.5°	703.2	685.0	630.5	569.8	539.5	530.4	530.4	533.5	533.5
55°	621.3	600.1	551.7	491.0	466.7	454.7	445.5	442.6	448.6
57.5°	542.5	524.3	478.9	421.3	394.0	381.9	363.7	357.6	363.7
60°	472.8	457.7	412.2	357.6	330.3	306.2	284.9	272.8	278.8
62.5°	412.2	394.0	348.6	303.1	272.8	245.5	212.2	194.0	203.0
65°	351.5	336.4	291.0	245.5	215.2	181.8	142.4	130.3	130.3
67.5°	297.0	281.9	239.4	200.0	163.6	124.2	87.9	84.8	87.9
70°	245.5	230.4	194.0	154.6	115.2	75.8	51.5	51.5	51.5
72.5°	203.0	184.9	151.6	112.1	72.7	39.4	27.3	30.3	30.3
75°	157.7	142.4	112.1	75.8	42.5	18.2	15.1	15.1	15.1
77.5°	118.2	106.0	78.8	48.4	21.2	6.1	6.1	6.1	6.1
80°	81.9	69.7	51.5	30.3	12.1	6.1	6.1	6.1	6.1
82.5°	48.4	42.5	30.3	15.1	6.1	3.0	3.0	3.0	3.0
85°	24.3	21.2	12.1	6.1	3.0	3.0	3.0	3.0	3.0
87.5°	6.1	6.1	3.0	3.0	0.0	3.0	3.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)