

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: P582682

Luminaire Tested: **HC645D010-HM64560935-61WWW**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582682  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC645D010-HM64560935-61WWW  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4244.2 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.06 / 1.14  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

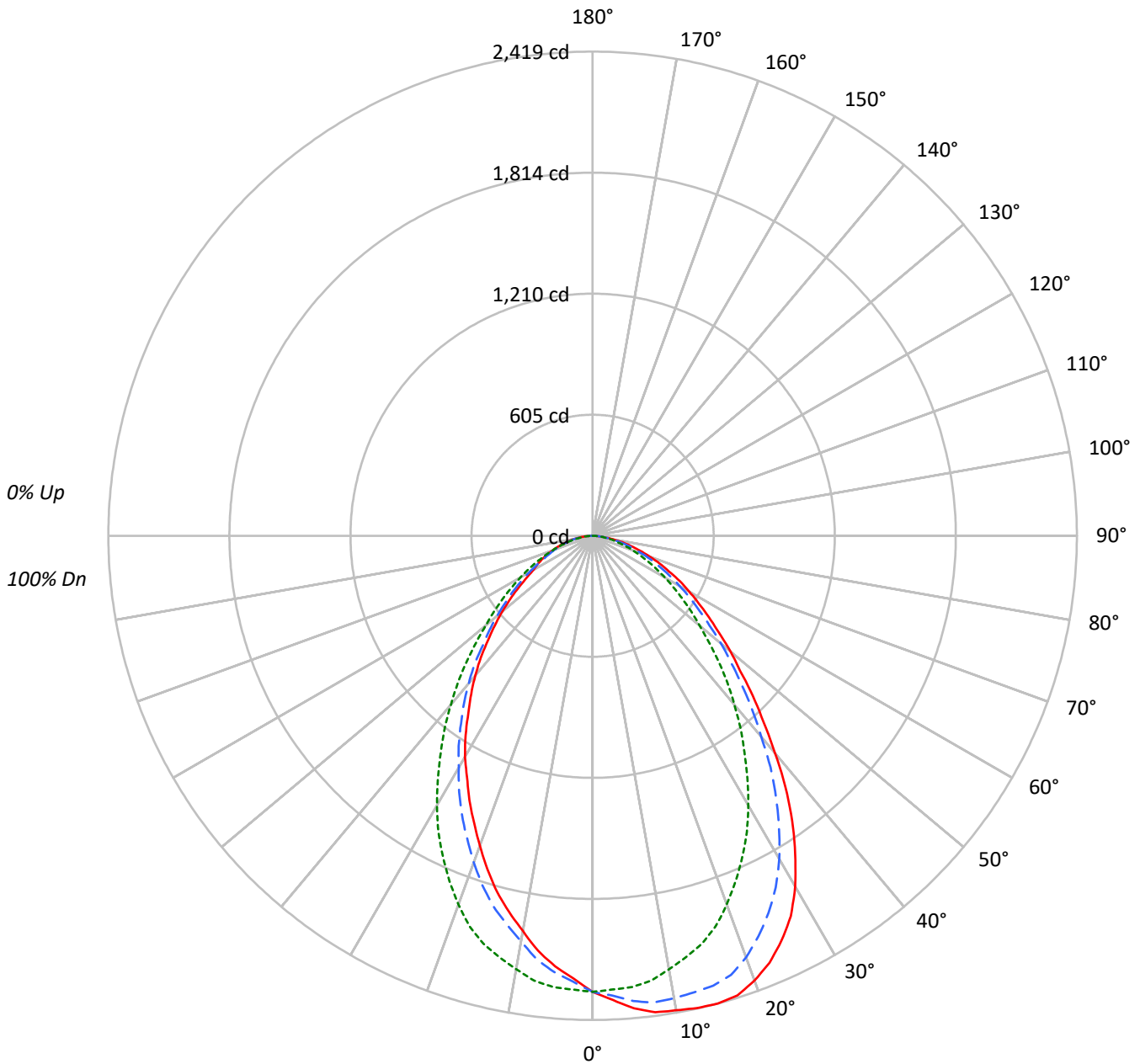
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P582682

CATALOG NUMBER: HC645D010-HM64560935-61WWW

### Luminous Intensity Polar Plot





TEST NUMBER: P582682

CATALOG NUMBER: HC645D010-HM64560935-61WWW

**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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87			87
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76			76
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66			66
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58			58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51			51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	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	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32			32

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

	0°	90°	180°
0°	124902	124902	124902
5°	130442	124537	118798
10°	133999	122393	111638
15°	137311	119740	104598
20°	137929	114314	96072
25°	135038	107026	88106
30°	128115	98414	80747
35°	116359	88446	72438
40°	101383	78783	65172
45°	87730	68945	57293
50°	76629	59367	50207
55°	67706	52165	43086
60°	60861	45720	37322
65°	54506	39771	36204
70°	48662	33916	33916
75°	42214	28573	31835
80°	33874	24214	29044
85°	23147	21260	25097



TEST NUMBER: P582682

CATALOG NUMBER: HC645D010-HM64560935-61WWW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	214.1	5.0
10°-20°	595.2	14.0
20°-30°	829.6	19.5
30°-40°	854.7	20.1
40°-50°	708.4	16.7
50°-60°	509.1	12.0
60°-70°	324.2	7.6
70°-80°	166.5	3.9
80°-90°	42.4	1.0
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°	1638.9	38.6
0°-40°	2493.7	58.8
0°-60°	3711.1	87.4
0°-90°	4244.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4244.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2278	2278	2278	2278	2278	
5°	2370	2334	2263	2190	2159	227
15°	2419	2328	2110	1917	1843	682
25°	2232	2079	1769	1542	1457	1023
35°	1739	1598	1322	1147	1082	1080
45°	1132	1052	889	776	739	876
55°	708	650	546	485	451	638
65°	420	374	307	267	279	421
75°	199	172	135	141	150	213
85°	37	34	34	37	40	47
90°	0	0	0	0	0	



TEST NUMBER: P582682

CATALOG NUMBER: HC645D010-HM64560935-61WWW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2278.4	2278.4	2278.4	2278.4	2278.4	2278.4	2278.4	2278.4	2278.4
2.5°	2321.4	2312.1	2299.9	2287.6	2269.2	2247.7	2229.4	2223.2	2214.0
5°	2370.4	2358.2	2333.6	2303.0	2263.1	2223.2	2189.5	2168.1	2158.8
7.5°	2401.1	2385.8	2352.0	2299.9	2241.6	2183.3	2134.3	2103.7	2091.3
10°	2407.2	2391.9	2345.9	2275.4	2198.7	2118.9	2057.7	2020.8	2005.5
12.5°	2416.4	2394.9	2336.7	2253.9	2155.7	2063.8	1987.1	1941.1	1925.8
15°	2419.4	2394.9	2327.5	2226.2	2109.8	1999.4	1916.6	1861.4	1843.0
17.5°	2407.2	2379.7	2299.9	2177.2	2045.4	1928.9	1830.7	1772.4	1747.9
20°	2364.3	2333.6	2241.6	2103.7	1959.5	1836.8	1735.7	1674.3	1646.8
22.5°	2309.1	2269.2	2165.0	2017.8	1867.5	1738.7	1637.5	1576.2	1548.6
25°	2232.5	2195.6	2079.1	1922.7	1769.4	1634.5	1542.5	1478.1	1456.6
27.5°	2143.5	2100.6	1981.0	1824.6	1668.2	1533.2	1444.3	1386.0	1358.5
30°	2023.9	1984.0	1864.5	1708.0	1554.7	1428.9	1337.0	1288.0	1275.6
32.5°	1882.9	1849.1	1732.6	1585.4	1438.2	1321.6	1245.0	1192.8	1180.6
35°	1738.7	1698.9	1597.6	1459.7	1321.6	1217.5	1146.8	1100.9	1082.4
37.5°	1582.4	1545.5	1459.7	1337.0	1214.3	1116.2	1054.9	1015.0	996.6
40°	1416.7	1389.2	1309.4	1211.2	1100.9	1015.0	962.9	929.1	910.7
42.5°	1263.4	1235.8	1180.6	1088.7	996.6	920.0	874.0	843.3	827.9
45°	1131.6	1107.0	1051.8	972.1	889.3	824.9	775.8	754.4	739.0
47.5°	999.6	987.4	938.4	864.7	788.1	732.9	699.1	674.6	662.4
50°	898.5	883.2	837.2	760.5	696.1	653.1	622.5	601.0	588.7
52.5°	794.2	778.9	735.9	671.5	619.5	579.6	549.0	530.5	518.2
55°	708.4	696.1	650.1	591.9	545.8	512.1	484.6	463.1	450.8
57.5°	628.6	616.4	573.5	518.2	478.3	447.7	423.2	404.8	389.4
60°	555.1	545.8	502.9	450.8	417.0	386.4	364.9	349.6	340.4
62.5°	490.7	472.2	435.4	389.4	358.8	334.3	312.8	303.6	309.7
65°	420.2	410.9	374.1	334.3	306.6	282.1	266.7	273.0	279.1
67.5°	361.9	349.6	318.9	282.1	257.6	239.2	230.0	242.2	245.3
70°	303.6	291.4	263.7	233.1	211.6	199.3	199.3	208.6	211.6
72.5°	248.4	239.2	214.7	190.1	174.8	165.6	171.7	177.8	180.9
75°	199.3	190.1	171.7	150.3	134.9	134.9	141.1	147.2	150.3
77.5°	153.3	147.2	128.8	113.4	107.3	107.3	113.4	116.5	119.6
80°	107.3	101.2	92.0	82.8	76.7	82.8	88.9	88.9	92.0
82.5°	70.5	67.4	61.3	55.2	55.2	58.3	61.3	64.4	64.4
85°	36.8	36.8	33.8	30.6	33.8	36.8	36.8	39.9	39.9
87.5°	12.3	12.3	12.3	12.3	15.4	15.4	15.4	15.4	15.4
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)