

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: P580718

Luminaire Tested: **HC445D010-HM44560830-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580718
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC445D010-HM44560830-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4565.1 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

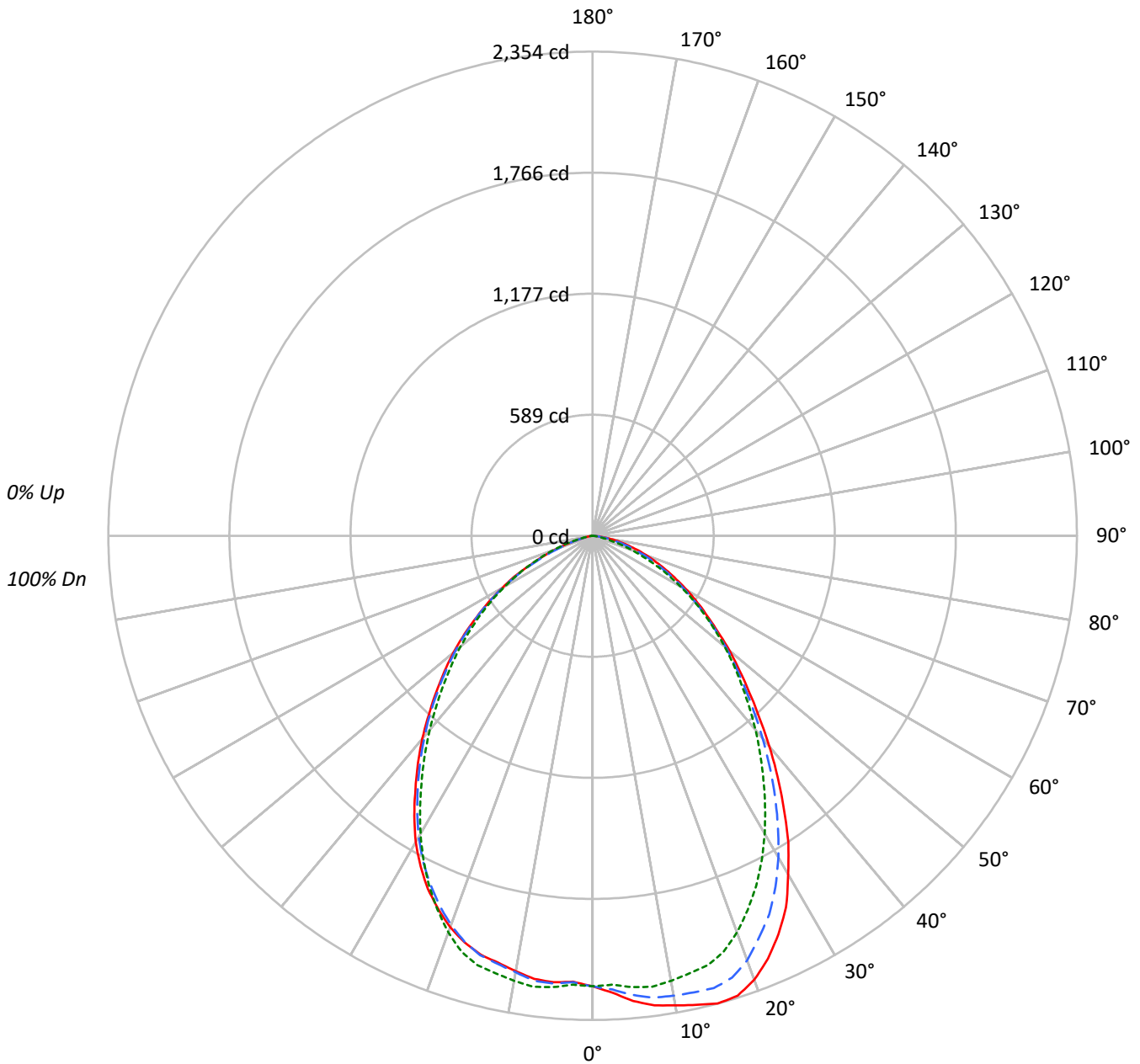
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P580718

CATALOG NUMBER: HC445D010-HM44560830-41RWWC

Luminous Intensity Polar Plot





TEST NUMBER: P580718

CATALOG NUMBER: HC445D010-HM44560830-41RWWC

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	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	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76					76			
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67					67			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	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	49	44	56	49	44	54	48	44	53	47	43	41					41			
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37					37			
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31					31			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	270213	270213	270213
5°	281151	272719	269784
10°	290338	275133	269196
15°	300534	275966	269159
20°	301547	269296	265805
25°	290893	255848	257863
30°	270697	238238	244975
35°	243845	217976	226001
40°	214989	198292	207357
45°	187973	178676	187468
50°	166447	160767	169287
55°	146425	141974	147694
60°	130722	121224	124875
65°	114906	98503	96781
70°	100366	72597	66213
75°	83257	43749	35314
80°	63147	16835	10513
85°	29437	4104	4104



TEST NUMBER: P580718

CATALOG NUMBER: HC445D010-HM44560830-41RWWC

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.3	4.6
10°-20°	616.6	13.5
20°-30°	893.0	19.6
30°-40°	942.2	20.6
40°-50°	815.4	17.9
50°-60°	604.0	13.2
60°-70°	348.2	7.6
70°-80°	121.6	2.7
80°-90°	12.8	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°	1721.0	37.7
0°-40°	2663.1	58.3
0°-60°	4082.6	89.4
0°-90°	4565.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4565.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2191	2191	2191	2191	2191	
5°	2271	2241	2203	2185	2179	218
15°	2354	2276	2161	2111	2108	662
25°	2137	2031	1880	1868	1895	978
35°	1619	1545	1448	1480	1501	1011
45°	1078	1048	1024	1063	1075	837
55°	681	666	660	684	687	614
65°	394	370	338	320	332	393
75°	175	148	92	74	74	188
85°	21	12	3	3	3	32
90°	0	0	0	0	0	



TEST NUMBER: P580718

CATALOG NUMBER: HC445D010-HM44560830-41RWWC

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2190.7	2190.7	2190.7	2190.7	2190.7	2190.7	2190.7	2190.7	2190.7
2.5°	2223.2	2217.4	2208.5	2196.7	2184.8	2175.9	2173.0	2170.1	2170.1
5°	2270.7	2258.8	2241.1	2217.4	2202.6	2193.7	2184.8	2178.9	2178.9
7.5°	2303.2	2291.3	2264.8	2232.2	2211.5	2193.7	2181.8	2173.0	2173.0
10°	2318.1	2303.2	2270.7	2229.2	2196.7	2173.0	2155.2	2149.3	2149.3
12.5°	2335.8	2318.1	2273.6	2220.3	2178.9	2149.3	2131.6	2125.6	2125.6
15°	2353.5	2332.9	2276.5	2214.4	2161.1	2125.6	2110.8	2107.8	2107.8
17.5°	2344.6	2318.1	2252.9	2178.9	2119.7	2084.1	2069.3	2069.3	2072.3
20°	2297.3	2270.7	2196.7	2113.7	2051.6	2025.0	2013.1	2019.0	2025.0
22.5°	2226.3	2193.7	2113.7	2033.8	1968.7	1945.0	1945.0	1953.9	1962.8
25°	2137.4	2107.8	2030.8	1942.1	1879.9	1862.1	1868.0	1882.8	1894.7
27.5°	2036.8	2004.2	1924.3	1841.4	1779.3	1770.3	1785.1	1805.9	1811.8
30°	1900.6	1874.0	1805.9	1726.0	1672.7	1669.6	1690.4	1705.2	1720.0
32.5°	1770.3	1740.8	1675.6	1598.6	1560.1	1563.2	1586.8	1604.6	1613.4
35°	1619.4	1592.7	1545.3	1483.2	1447.6	1453.6	1480.3	1498.0	1500.9
37.5°	1477.2	1459.5	1412.1	1364.8	1338.1	1350.0	1373.7	1394.4	1394.4
40°	1335.2	1320.4	1284.8	1246.3	1231.5	1246.3	1270.0	1287.8	1287.8
42.5°	1199.0	1190.1	1160.5	1133.9	1124.9	1145.7	1166.4	1181.2	1178.2
45°	1077.6	1068.7	1047.9	1027.3	1024.3	1045.0	1062.8	1071.7	1074.7
47.5°	968.1	962.1	944.4	929.6	929.6	950.3	965.1	974.0	976.9
50°	867.4	861.5	846.7	834.9	837.8	858.6	870.3	879.2	882.2
52.5°	766.8	763.7	752.0	737.2	746.0	760.8	775.6	781.6	784.5
55°	680.9	680.9	666.1	654.2	660.2	675.0	683.9	686.8	686.8
57.5°	604.0	600.9	583.2	571.3	574.4	589.2	595.0	598.0	598.0
60°	529.9	527.0	509.2	491.4	491.4	500.3	503.3	506.2	506.2
62.5°	458.9	455.9	435.2	420.4	414.5	411.5	411.5	417.4	429.3
65°	393.7	390.8	370.0	346.4	337.5	328.6	319.8	325.6	331.6
67.5°	334.6	328.6	307.9	287.1	266.5	251.7	236.9	245.7	257.6
70°	278.3	272.3	248.6	225.0	201.3	177.6	165.8	177.6	183.6
72.5°	225.0	219.1	195.3	171.7	142.2	118.4	115.5	118.4	121.4
75°	174.7	171.7	148.0	121.4	91.8	74.1	74.1	74.1	74.1
77.5°	130.3	124.3	100.6	77.0	53.3	41.4	38.5	38.5	38.5
80°	88.9	82.9	62.2	44.4	23.7	17.7	17.7	14.8	14.8
82.5°	50.4	47.3	32.5	17.7	8.9	5.9	5.9	5.9	5.9
85°	20.8	17.7	11.9	5.9	2.9	2.9	2.9	2.9	2.9
87.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	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)