

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: P580809

Luminaire Tested: **HC445D010-HM44560935-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580809
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC445D010-HM44560935-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4007.7 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

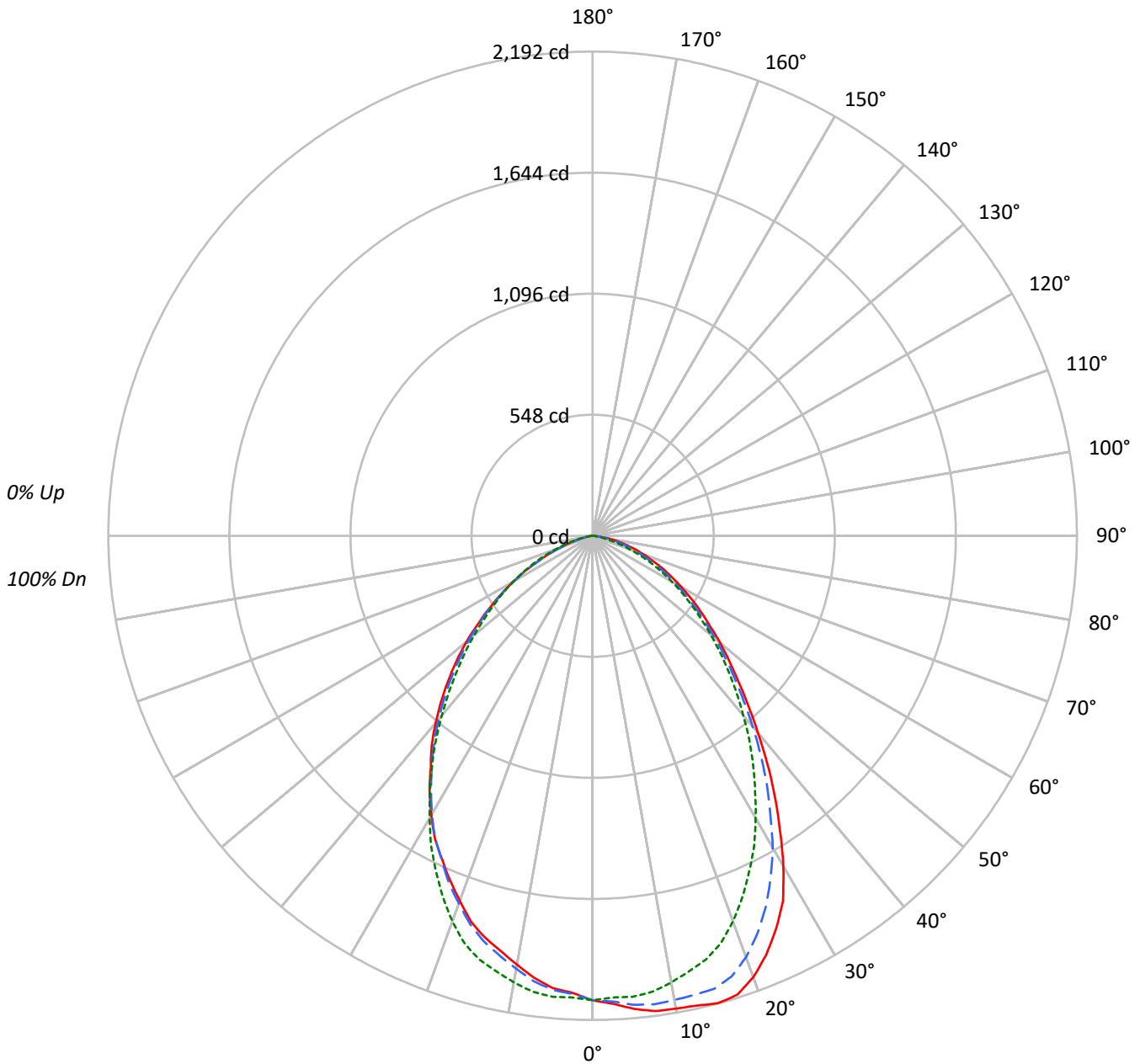
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P580809

CATALOG NUMBER: HC445D010-HM44560935-41RWWH

Luminous Intensity Polar Plot





TEST NUMBER: P580809

CATALOG NUMBER: HC445D010-HM44560935-41RWWH

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	259347	259347	259347
5°	266157	259371	254518
10°	272190	257135	246990
15°	279848	253478	240491
20°	279089	243766	230732
25°	267321	228207	219688
30°	245901	210194	207958
35°	216319	190766	192332
40°	187149	170742	177891
45°	162663	151725	160848
50°	144360	133825	142844
55°	128082	117394	122447
60°	114045	101809	101809
65°	101392	84610	79269
70°	87599	64049	56512
75°	73440	42367	34885
80°	55618	20386	18539
85°	29578	7501	7501



TEST NUMBER: P580809

CATALOG NUMBER: HC445D010-HM44560935-41RWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.1	5.0
10°-20°	564.5	14.1
20°-30°	796.1	19.9
30°-40°	822.4	20.5
40°-50°	697.2	17.4
50°-60°	507.3	12.7
60°-70°	296.4	7.4
70°-80°	110.2	2.7
80°-90°	14.4	0.4
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°	1559.8	38.9
0°-40°	2382.2	59.4
0°-60°	3586.7	89.5
0°-90°	4007.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4007.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2103	2103	2103	2103	2103	
5°	2150	2131	2095	2064	2056	206
15°	2192	2124	1985	1902	1883	616
25°	1964	1854	1677	1617	1614	898
35°	1437	1374	1267	1269	1277	897
45°	932	906	870	901	922	726
55°	596	567	546	564	569	536
65°	347	319	290	272	272	345
75°	154	128	89	71	73	165
85°	21	13	5	5	5	29
90°	0	0	0	0	0	



TEST NUMBER: P580809

CATALOG NUMBER: HC445D010-HM44560935-41RWWH

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6
2.5°	2120.9	2115.6	2110.5	2102.6	2092.2	2084.3	2076.5	2071.3	2071.3
5°	2149.6	2141.8	2131.4	2113.1	2094.8	2079.2	2063.5	2055.6	2055.6
7.5°	2170.5	2160.1	2139.2	2113.1	2081.8	2058.2	2034.7	2024.3	2019.0
10°	2173.2	2162.7	2133.9	2094.8	2053.0	2016.5	1990.3	1974.6	1972.0
12.5°	2178.4	2165.3	2128.8	2073.9	2019.0	1974.6	1945.9	1930.3	1925.0
15°	2191.5	2173.2	2123.5	2053.0	1985.0	1932.9	1901.6	1888.4	1883.3
17.5°	2178.4	2152.2	2092.2	2008.6	1932.9	1875.4	1844.0	1831.0	1831.0
20°	2126.2	2100.0	2029.5	1938.0	1857.1	1802.3	1771.0	1763.1	1757.8
22.5°	2053.0	2024.3	1948.6	1851.9	1771.0	1721.3	1700.4	1690.0	1687.4
25°	1964.2	1935.5	1854.4	1755.3	1676.8	1635.1	1616.8	1616.8	1614.2
27.5°	1865.0	1828.4	1744.8	1658.7	1582.8	1551.5	1543.6	1543.6	1546.2
30°	1726.5	1700.4	1629.8	1546.2	1475.8	1454.9	1454.9	1460.1	1460.1
32.5°	1577.6	1559.4	1496.6	1423.5	1368.6	1355.6	1360.9	1371.3	1373.9
35°	1436.6	1415.7	1373.9	1308.6	1266.9	1261.6	1269.4	1277.3	1277.3
37.5°	1298.2	1277.3	1248.6	1196.3	1165.0	1167.6	1178.0	1188.4	1196.3
40°	1162.3	1146.7	1125.7	1084.0	1060.4	1070.9	1084.0	1094.4	1104.8
42.5°	1042.2	1026.5	1010.8	979.5	963.8	976.9	992.5	1003.0	1013.4
45°	932.5	922.1	906.4	880.2	869.8	882.8	901.1	911.6	922.1
47.5°	838.5	833.2	812.3	788.8	783.6	796.6	812.3	825.3	833.2
50°	752.3	744.4	726.2	702.6	697.4	718.3	728.7	736.6	744.4
52.5°	668.7	660.9	639.9	619.0	619.0	634.7	642.6	645.2	653.0
55°	595.6	587.7	566.8	551.1	545.9	559.0	564.1	564.1	569.4
57.5°	527.6	519.8	498.8	480.6	478.0	485.8	485.8	485.8	488.4
60°	462.3	454.5	433.5	417.9	412.7	415.3	412.7	410.1	412.7
62.5°	402.2	394.4	373.5	355.2	350.0	350.0	342.2	339.5	342.2
65°	347.4	334.4	318.6	300.4	289.9	282.1	271.6	271.6	271.6
67.5°	292.5	282.1	263.8	245.5	232.5	219.4	203.8	208.9	211.6
70°	242.9	235.1	214.2	195.9	177.6	161.9	148.9	154.1	156.7
72.5°	198.5	188.0	169.8	148.9	133.2	112.3	104.5	109.7	109.7
75°	154.1	143.6	128.0	107.0	88.9	70.6	70.6	73.2	73.2
77.5°	114.9	104.5	88.9	70.6	54.9	41.7	44.4	44.4	44.4
80°	78.3	70.6	57.4	41.7	28.7	23.6	23.6	23.6	26.1
82.5°	44.4	39.2	31.3	20.9	13.0	13.0	13.0	13.0	13.0
85°	20.9	15.7	13.0	7.9	5.3	5.3	5.3	5.3	5.3
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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)