

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: P580794

Luminaire Tested: **HC445D010-HM44560930-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580794
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC445D010-HM44560930-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3792.5 lumens
Efficiency: N/A
Efficacy: 86.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

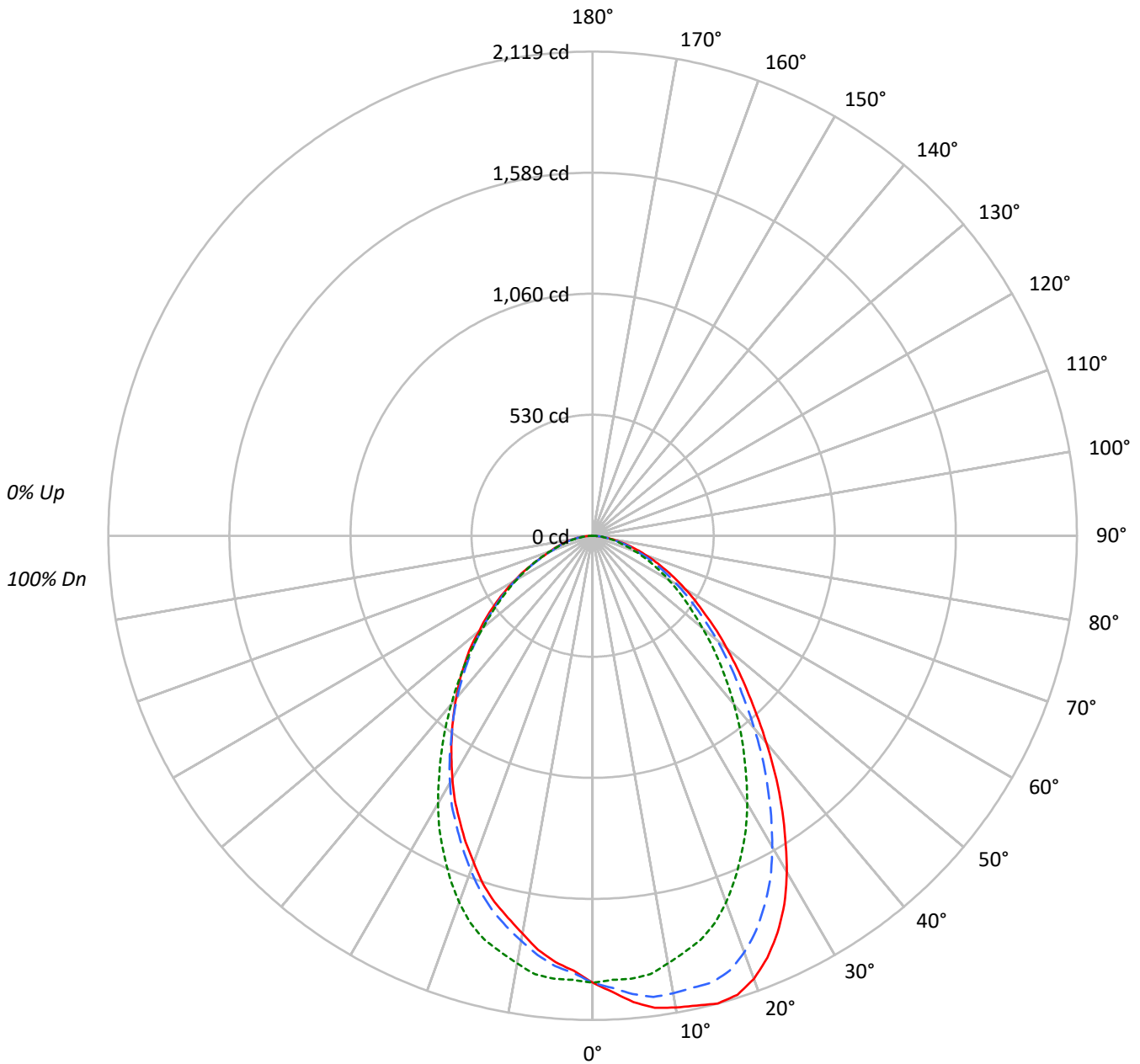
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P580794

CATALOG NUMBER: HC445D010-HM44560930-41WWWB

Luminous Intensity Polar Plot





TEST NUMBER: P580794

CATALOG NUMBER: HC445D010-HM44560930-41WWWB

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58																			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46																			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41																			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	241202	241202	241202
5°	253626	240886	231872
10°	262533	238010	221352
15°	270551	233685	211887
20°	270858	224064	199675
25°	260680	209426	187228
30°	242055	192704	174844
35°	216967	173495	161780
40°	190386	154801	149552
45°	166396	137055	137945
50°	146931	119952	124269
55°	129566	106362	111738
60°	115797	94137	97838
65°	102560	82772	82772
70°	89619	70613	70613
75°	76585	59857	67006
80°	60661	53487	60661
85°	39060	46278	56892



TEST NUMBER: P580794

CATALOG NUMBER: HC445D010-HM44560930-41WWWB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.3	4.9
10°-20°	521.8	13.8
20°-30°	731.0	19.3
30°-40°	753.1	19.9
40°-50°	641.2	16.9
50°-60°	475.1	12.5
60°-70°	298.1	7.9
70°-80°	148.1	3.9
80°-90°	38.9	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°	1438.0	37.9
0°-40°	2191.1	57.8
0°-60°	3307.3	87.2
0°-90°	3792.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3792.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1956	1956	1956	1956	1956	
5°	2048	2013	1946	1890	1873	197
15°	2119	2023	1830	1697	1659	596
25°	1915	1782	1539	1406	1376	876
35°	1441	1333	1152	1077	1074	898
45°	954	889	786	771	791	740
55°	602	555	495	505	520	545
65°	351	316	284	279	284	351
75°	161	143	126	136	141	172
85°	28	28	33	38	40	35
90°	0	0	0	0	0	



TEST NUMBER: P580794

CATALOG NUMBER: HC445D010-HM44560930-41WWWB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1955.5	1955.5	1955.5	1955.5	1955.5	1955.5	1955.5	1955.5	1955.5
2.5°	1998.2	1990.7	1980.7	1963.1	1945.5	1930.4	1915.4	1907.8	1905.4
5°	2048.4	2033.4	2013.3	1980.7	1945.5	1915.4	1890.2	1877.7	1872.7
7.5°	2083.6	2068.5	2035.9	1985.6	1935.5	1890.2	1850.1	1832.6	1827.5
10°	2096.1	2078.5	2033.4	1965.5	1900.3	1845.1	1799.9	1777.2	1767.3
12.5°	2106.1	2083.6	2025.8	1945.5	1865.2	1797.3	1749.6	1719.6	1712.1
15°	2118.7	2093.7	2023.3	1925.5	1830.0	1749.6	1697.0	1669.3	1659.3
17.5°	2106.1	2078.5	1995.7	1885.3	1777.2	1689.4	1631.7	1606.6	1596.6
20°	2063.5	2033.4	1940.5	1822.5	1707.0	1616.7	1558.9	1533.8	1521.2
22.5°	1998.2	1965.5	1870.1	1744.7	1626.7	1538.8	1483.6	1458.5	1451.0
25°	1915.4	1882.7	1782.3	1654.3	1538.8	1453.4	1405.8	1383.2	1375.7
27.5°	1817.4	1784.9	1686.9	1561.4	1451.0	1370.6	1332.9	1310.4	1305.3
30°	1699.5	1666.8	1571.5	1456.0	1353.0	1277.7	1247.7	1230.0	1227.6
32.5°	1568.9	1541.3	1453.4	1348.1	1250.1	1187.4	1164.7	1152.2	1149.7
35°	1440.9	1410.8	1332.9	1237.6	1152.2	1097.0	1076.9	1074.4	1074.4
37.5°	1310.4	1280.3	1217.5	1129.6	1056.8	1006.7	999.1	1001.6	1001.6
40°	1182.4	1154.8	1099.6	1026.7	961.4	923.7	921.3	926.3	928.8
42.5°	1061.9	1039.3	989.0	926.3	871.1	840.9	843.5	853.5	861.0
45°	953.9	933.8	888.6	833.4	785.7	763.2	770.7	783.3	790.8
47.5°	856.0	838.5	795.7	745.6	705.4	690.4	700.4	715.4	725.5
50°	765.7	750.6	710.5	657.7	625.1	615.1	627.5	642.7	647.6
52.5°	685.3	670.3	627.5	582.4	557.3	552.2	564.8	577.4	584.9
55°	602.5	589.9	554.8	514.7	494.6	492.0	504.6	514.7	519.6
57.5°	534.7	522.2	489.5	454.4	436.8	434.3	446.8	454.4	456.9
60°	469.4	456.9	426.8	394.2	381.6	381.6	389.1	394.2	396.6
62.5°	409.2	396.6	369.0	341.4	331.3	331.3	331.3	333.9	341.4
65°	351.4	341.4	316.3	291.2	283.6	278.6	278.6	278.6	283.6
67.5°	298.7	288.7	268.6	246.1	238.4	230.9	228.4	233.5	233.5
70°	248.5	241.0	220.9	203.3	195.8	188.3	185.8	195.8	195.8
72.5°	203.3	195.8	183.2	165.7	158.2	155.6	160.7	165.7	168.2
75°	160.7	153.2	143.1	133.1	125.6	128.0	135.5	138.1	140.6
77.5°	120.5	118.0	107.9	100.4	100.4	102.9	107.9	113.0	115.5
80°	85.4	82.8	77.9	72.8	75.3	80.3	82.8	87.9	85.4
82.5°	52.7	52.7	50.2	50.2	52.7	57.8	60.3	62.7	65.3
85°	27.6	27.6	27.6	30.1	32.7	35.1	37.7	40.2	40.2
87.5°	7.5	10.0	10.0	12.6	15.0	15.0	17.6	17.6	17.6
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)