

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: P580789

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580789
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC445D010-HM44560930-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3739.7 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

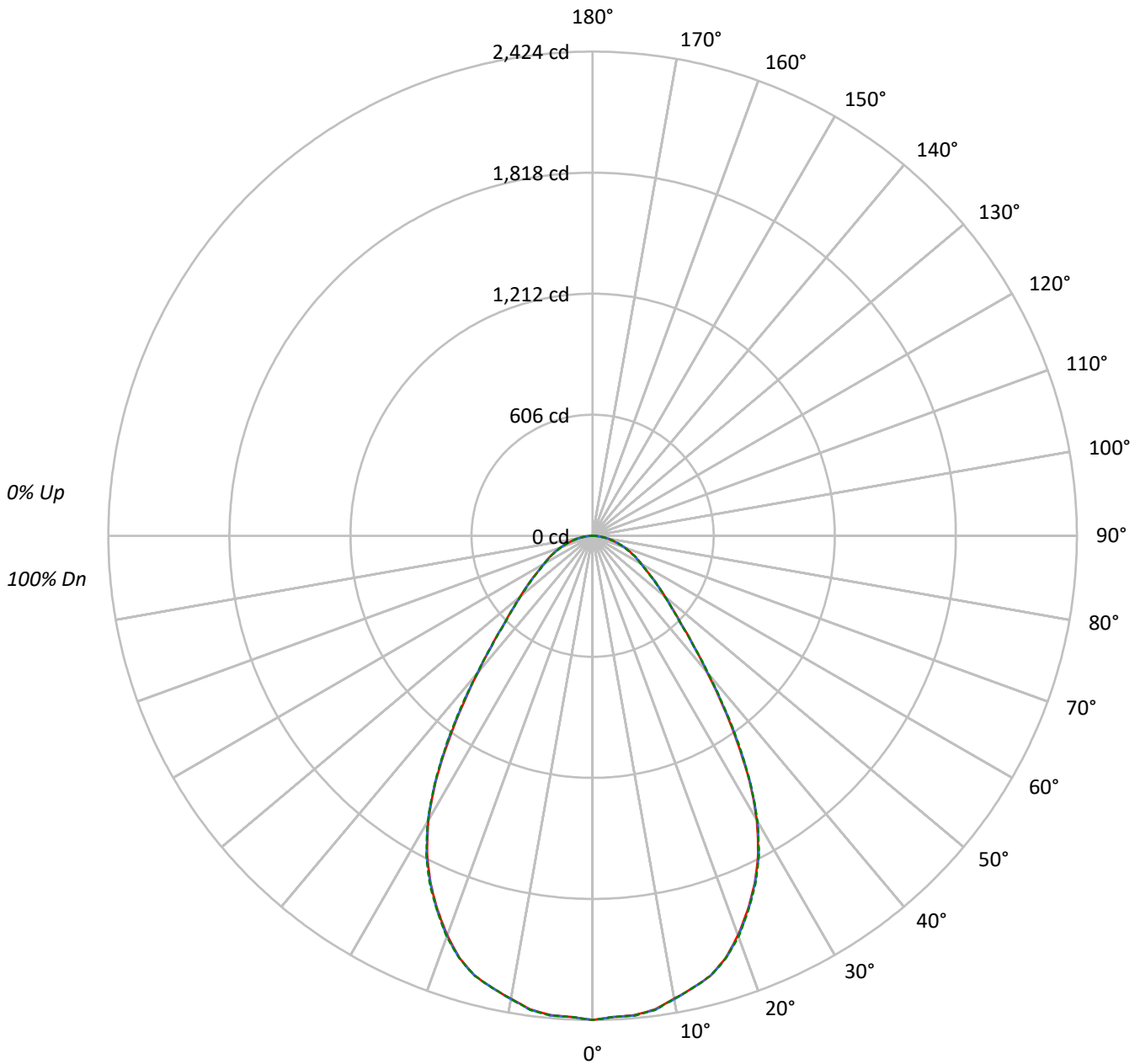
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	101	108	105	102	99	101	98	96	97	95	93	94	92	90	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	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69			69
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62			62
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56			56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51			51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46			46
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42			42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39			39
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	298977	298977	298977
5°	298250	298559	298559
10°	294785	295098	294785
15°	291251	291251	291251
20°	279299	279955	280283
25°	261238	261578	262259
30°	234079	234806	234806
35°	190043	191549	191941
40°	143433	144238	144641
45°	109860	109424	109424
50°	90515	90036	90036
55°	77696	77159	77159
60°	69345	68704	68704
65°	65172	65172	65172
70°	60623	60623	60623
75°	55044	56188	55044
80°	51711	49864	51711
85°	42598	42598	42598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.4	6.1
10°-20°	639.1	17.1
20°-30°	878.2	23.5
30°-40°	789.6	21.1
40°-50°	498.9	13.3
50°-60°	325.7	8.7
60°-70°	220.7	5.9
70°-80°	124.2	3.3
80°-90°	34.9	0.9
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°	1745.6	46.7
0°-40°	2535.3	67.8
0°-60°	3359.9	89.8
0°-90°	3739.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3739.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2424	2424	2424	2424	2424	
5°	2409	2409	2411	2411	2411	228
15°	2281	2281	2281	2281	2281	639
25°	1920	1922	1922	1927	1927	876
35°	1262	1267	1272	1277	1275	786
45°	630	627	627	627	627	500
55°	361	361	359	361	359	327
65°	223	223	223	223	223	221
75°	116	118	118	118	116	124
85°	30	30	30	30	30	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2423.9	2423.9	2423.9	2423.9	2423.9
2.5°	2411.3	2411.3	2411.3	2411.3	2411.3
5°	2408.8	2408.8	2411.3	2411.3	2411.3
7.5°	2391.2	2393.8	2393.8	2393.8	2393.8
10°	2353.6	2353.6	2356.1	2356.1	2353.6
12.5°	2318.5	2318.5	2318.5	2321.0	2318.5
15°	2280.8	2280.8	2280.8	2280.8	2280.8
17.5°	2215.6	2218.1	2218.1	2218.1	2218.1
20°	2127.8	2132.8	2132.8	2135.3	2135.3
22.5°	2027.5	2029.9	2032.4	2035.0	2032.4
25°	1919.5	1922.0	1922.0	1927.0	1927.0
27.5°	1794.1	1796.5	1801.6	1801.6	1801.6
30°	1643.5	1646.0	1648.6	1648.6	1648.6
32.5°	1465.3	1465.3	1470.4	1472.8	1470.4
35°	1262.1	1267.2	1272.1	1277.2	1274.7
37.5°	1068.9	1074.0	1076.4	1076.4	1078.9
40°	890.8	895.8	895.8	900.7	898.3
42.5°	750.3	747.7	747.7	752.7	750.3
45°	629.8	627.3	627.3	627.3	627.3
47.5°	541.9	539.5	539.5	539.5	539.5
50°	471.7	469.2	469.2	469.2	469.2
52.5°	414.0	411.5	411.5	411.5	409.0
55°	361.3	361.3	358.8	361.3	358.8
57.5°	313.6	313.6	313.6	313.6	313.6
60°	281.1	278.5	278.5	278.5	278.5
62.5°	250.9	250.9	250.9	250.9	250.9
65°	223.3	223.3	223.3	223.3	223.3
67.5°	195.7	193.2	195.7	195.7	193.2
70°	168.1	165.6	168.1	168.1	168.1
72.5°	140.5	140.5	140.5	143.1	140.5
75°	115.5	117.9	117.9	117.9	115.5
77.5°	92.8	95.4	92.8	92.8	92.8
80°	72.8	70.2	70.2	70.2	72.8
82.5°	50.2	50.2	50.2	50.2	50.2
85°	30.1	30.1	30.1	30.1	30.1
87.5°	12.6	12.6	12.6	12.6	12.6
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)