

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: P580825

Luminaire Tested: **HC445D010-HM44560940-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580825
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-HM44560940-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3862.4 lumens
Efficiency: N/A
Efficacy: 87.8 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

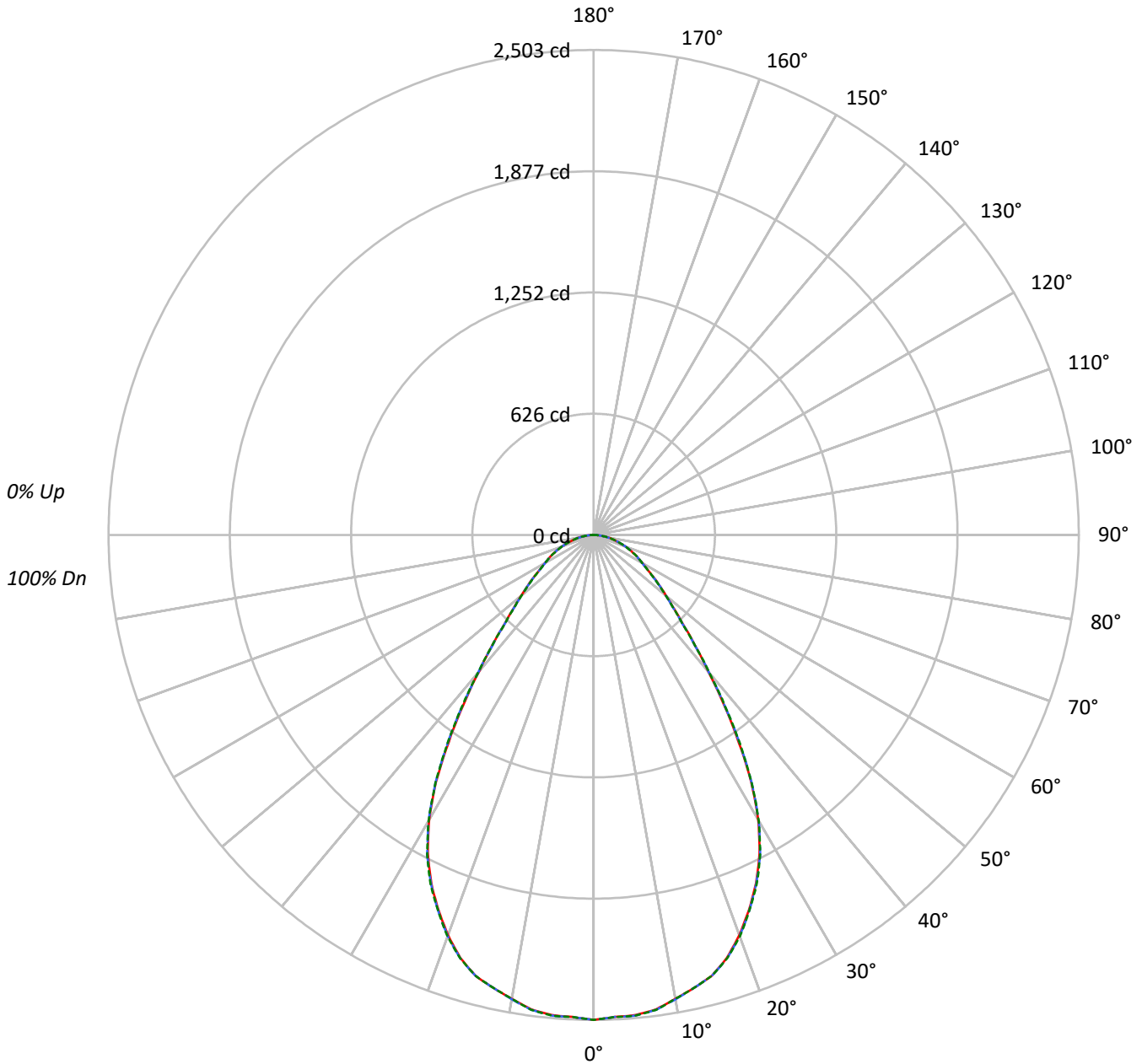
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89	89	89	89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78	78	78	78
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69	69	69	69
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62	62	62	62
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56	56	56	56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51	51	51	51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46	46	46	46
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42	42	42	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39	39	39	39
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36	36	36	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	308771	308771	308771
5°	308031	308353	308353
10°	304454	304780	304454
15°	300803	300803	300803
20°	288448	289130	289471
25°	269812	270152	270860
30°	241756	242482	242482
35°	196277	197843	198220
40°	148119	148956	149391
45°	113454	113000	113000
50°	93490	92991	92991
55°	80255	79696	79696
60°	71614	70973	70973
65°	67332	67332	67332
70°	62607	62607	62607
75°	56807	58046	56807
80°	53416	51569	53416
85°	44014	44014	44014



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.9	6.1
10°-20°	660.0	17.1
20°-30°	907.0	23.5
30°-40°	815.5	21.1
40°-50°	515.3	13.3
50°-60°	336.4	8.7
60°-70°	228.0	5.9
70°-80°	128.3	3.3
80°-90°	36.0	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°	1802.9	46.7
0°-40°	2618.4	67.8
0°-60°	3470.1	89.8
0°-90°	3862.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3862.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2503	2503	2503	2503	2503	
5°	2488	2488	2490	2490	2490	236
15°	2356	2356	2356	2356	2356	660
25°	1982	1985	1985	1990	1990	905
35°	1304	1309	1314	1319	1316	812
45°	650	648	648	648	648	516
55°	373	373	371	373	371	338
65°	231	231	231	231	231	229
75°	119	122	122	122	119	128
85°	31	31	31	31	31	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2503.3	2503.3	2503.3	2503.3	2503.3
2.5°	2490.4	2490.4	2490.4	2490.4	2490.4
5°	2487.8	2487.8	2490.4	2490.4	2490.4
7.5°	2469.6	2472.2	2472.2	2472.2	2472.2
10°	2430.8	2430.8	2433.4	2433.4	2430.8
12.5°	2394.5	2394.5	2394.5	2397.0	2394.5
15°	2355.6	2355.6	2355.6	2355.6	2355.6
17.5°	2288.2	2290.8	2290.8	2290.8	2290.8
20°	2197.5	2202.7	2202.7	2205.3	2205.3
22.5°	2093.9	2096.5	2099.0	2101.6	2099.0
25°	1982.5	1985.0	1985.0	1990.2	1990.2
27.5°	1852.9	1855.5	1860.6	1860.6	1860.6
30°	1697.4	1699.9	1702.5	1702.5	1702.5
32.5°	1513.4	1513.4	1518.6	1521.2	1518.6
35°	1303.5	1308.7	1313.9	1319.0	1316.4
37.5°	1103.9	1109.1	1111.7	1111.7	1114.3
40°	919.9	925.1	925.1	930.4	927.8
42.5°	774.9	772.3	772.3	777.4	774.9
45°	650.4	647.8	647.8	647.8	647.8
47.5°	559.8	557.2	557.2	557.2	557.2
50°	487.2	484.6	484.6	484.6	484.6
52.5°	427.6	425.0	425.0	425.0	422.4
55°	373.2	373.2	370.6	373.2	370.6
57.5°	323.9	323.9	323.9	323.9	323.9
60°	290.3	287.7	287.7	287.7	287.7
62.5°	259.2	259.2	259.2	259.2	259.2
65°	230.7	230.7	230.7	230.7	230.7
67.5°	202.2	199.5	202.2	202.2	199.5
70°	173.6	171.0	173.6	173.6	173.6
72.5°	145.1	145.1	145.1	147.8	145.1
75°	119.2	121.8	121.8	121.8	119.2
77.5°	95.9	98.5	95.9	95.9	95.9
80°	75.2	72.6	72.6	72.6	75.2
82.5°	51.8	51.8	51.8	51.8	51.8
85°	31.1	31.1	31.1	31.1	31.1
87.5°	12.9	12.9	12.9	12.9	12.9
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)