

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: P581203

Luminaire Tested: **HC455D010-HM44560927-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581203
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: HC455D010-HM44560927-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3812.6 lumens
Efficiency: N/A
Efficacy: 73.3 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

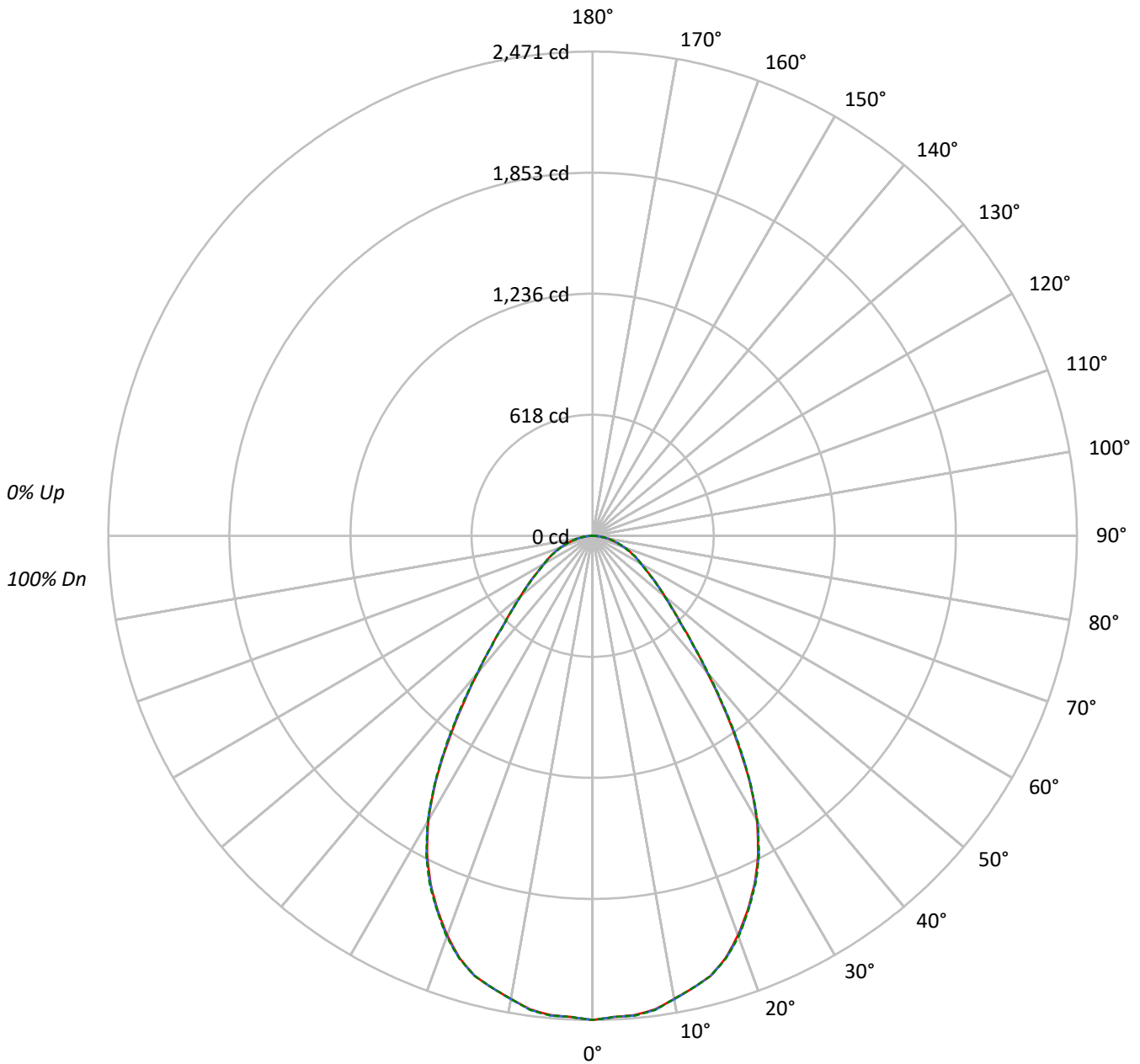
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	304799	304799	304799
5°	304069	304366	304366
10°	300521	300847	300521
15°	296933	296933	296933
20°	284733	285415	285744
25°	266328	266682	267376
30°	238651	239363	239363
35°	193748	195284	195675
40°	146219	147056	147459
45°	111989	111570	111570
50°	92281	91801	91801
55°	79202	78664	78664
60°	70677	70060	70060
65°	66457	66457	66457
70°	61777	61777	61777
75°	56092	57331	56092
80°	52635	50930	52635
85°	43448	43448	43448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.8	6.1
10°-20°	651.5	17.1
20°-30°	895.3	23.5
30°-40°	805.0	21.1
40°-50°	508.7	13.3
50°-60°	332.1	8.7
60°-70°	225.0	5.9
70°-80°	126.6	3.3
80°-90°	35.6	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°	1779.7	46.7
0°-40°	2584.7	67.8
0°-60°	3425.4	89.8
0°-90°	3812.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3812.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2471	2471	2471	2471	2471	
5°	2456	2456	2458	2458	2458	233
15°	2325	2325	2325	2325	2325	651
25°	1957	1960	1960	1965	1965	893
35°	1287	1292	1297	1302	1300	801
45°	642	640	640	640	640	509
55°	368	368	366	368	366	333
65°	228	228	228	228	228	226
75°	118	120	120	120	118	126
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°	2471.1	2471.1	2471.1	2471.1	2471.1
2.5°	2458.2	2458.2	2458.2	2458.2	2458.2
5°	2455.8	2455.8	2458.2	2458.2	2458.2
7.5°	2437.9	2440.4	2440.4	2440.4	2440.4
10°	2399.4	2399.4	2402.0	2402.0	2399.4
12.5°	2363.6	2363.6	2363.6	2366.2	2363.6
15°	2325.3	2325.3	2325.3	2325.3	2325.3
17.5°	2258.8	2261.4	2261.4	2261.4	2261.4
20°	2169.2	2174.4	2174.4	2176.9	2176.9
22.5°	2067.0	2069.4	2072.0	2074.6	2072.0
25°	1956.9	1959.5	1959.5	1964.6	1964.6
27.5°	1829.0	1831.6	1836.7	1836.7	1836.7
30°	1675.6	1678.0	1680.6	1680.6	1680.6
32.5°	1493.9	1493.9	1499.1	1501.5	1499.1
35°	1286.7	1291.8	1296.9	1302.1	1299.5
37.5°	1089.8	1094.9	1097.4	1097.4	1099.9
40°	908.1	913.3	913.3	918.3	915.8
42.5°	764.9	762.3	762.3	767.4	764.9
45°	642.0	639.6	639.6	639.6	639.6
47.5°	552.5	550.0	550.0	550.0	550.0
50°	480.9	478.4	478.4	478.4	478.4
52.5°	422.1	419.5	419.5	419.5	416.9
55°	368.3	368.3	365.8	368.3	365.8
57.5°	319.7	319.7	319.7	319.7	319.7
60°	286.5	284.0	284.0	284.0	284.0
62.5°	255.8	255.8	255.8	255.8	255.8
65°	227.7	227.7	227.7	227.7	227.7
67.5°	199.6	197.0	199.6	199.6	197.0
70°	171.3	168.9	171.3	171.3	171.3
72.5°	143.2	143.2	143.2	145.8	143.2
75°	117.7	120.3	120.3	120.3	117.7
77.5°	94.6	97.2	94.6	94.6	94.6
80°	74.1	71.7	71.7	71.7	74.1
82.5°	51.2	51.2	51.2	51.2	51.2
85°	30.7	30.7	30.7	30.7	30.7
87.5°	12.8	12.8	12.8	12.8	12.8
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)