

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: P580771

Luminaire Tested: **HC445D010-HM44560927-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580771
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-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: 3442.8 lumens
Efficiency: N/A
Efficacy: 78.2 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

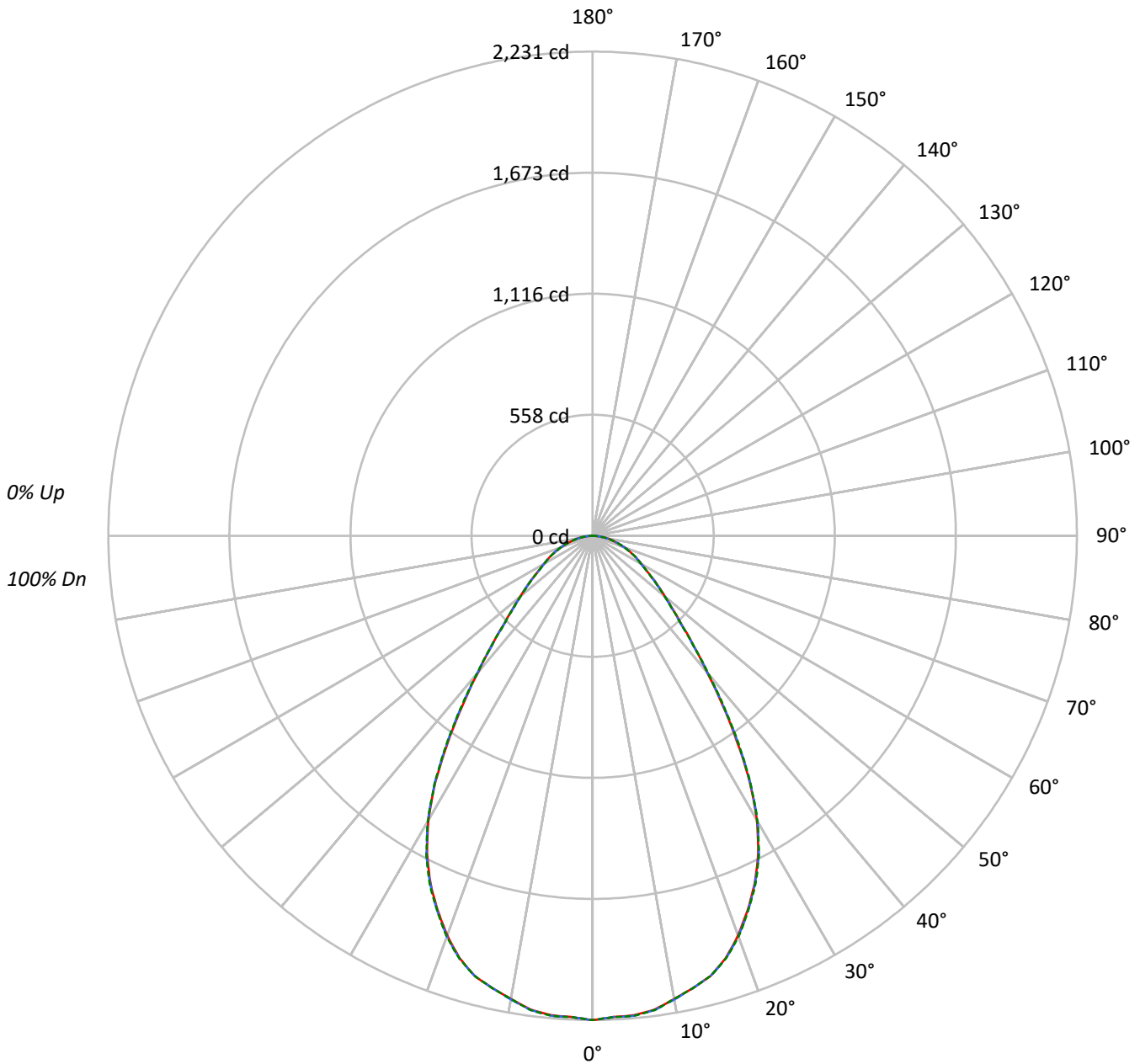
Input Watts (W): 44
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P580771

CATALOG NUMBER: HC445D010-HM44560927-41WDW

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	275233	275233	275233
5°	274564	274861	274861
10°	271376	271676	271376
15°	268125	268125	268125
20°	257115	257732	258021
25°	240510	240810	241436
30°	215492	216148	216148
35°	174956	176341	176702
40°	132049	132790	133144
45°	101139	100737	100737
50°	83319	82897	82897
55°	71546	71030	71030
60°	63819	63252	63252
65°	60007	60007	60007
70°	55791	55791	55791
75°	50659	51756	50659
80°	47591	45887	47591
85°	39202	39202	39202



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.2	6.1
10°-20°	588.3	17.1
20°-30°	808.5	23.5
30°-40°	726.9	21.1
40°-50°	459.3	13.3
50°-60°	299.9	8.7
60°-70°	203.2	5.9
70°-80°	114.4	3.3
80°-90°	32.1	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°	1607.0	46.7
0°-40°	2334.0	67.8
0°-60°	3093.1	89.8
0°-90°	3442.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3442.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2231	2231	2231	2231	2231	
5°	2218	2218	2220	2220	2220	210
15°	2100	2100	2100	2100	2100	588
25°	1767	1769	1769	1774	1774	807
35°	1162	1166	1171	1176	1174	723
45°	580	578	578	578	578	460
55°	333	333	330	333	330	301
65°	206	206	206	206	206	204
75°	106	109	109	109	106	114
85°	28	28	28	28	28	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2231.4	2231.4	2231.4	2231.4	2231.4
2.5°	2219.9	2219.9	2219.9	2219.9	2219.9
5°	2217.5	2217.5	2219.9	2219.9	2219.9
7.5°	2201.4	2203.7	2203.7	2203.7	2203.7
10°	2166.7	2166.7	2169.1	2169.1	2166.7
12.5°	2134.4	2134.4	2134.4	2136.7	2134.4
15°	2099.7	2099.7	2099.7	2099.7	2099.7
17.5°	2039.7	2042.0	2042.0	2042.0	2042.0
20°	1958.8	1963.5	1963.5	1965.7	1965.7
22.5°	1866.4	1868.8	1871.0	1873.4	1871.0
25°	1767.2	1769.4	1769.4	1774.0	1774.0
27.5°	1651.6	1653.9	1658.5	1658.5	1658.5
30°	1513.0	1515.4	1517.6	1517.6	1517.6
32.5°	1349.0	1349.0	1353.6	1355.9	1353.6
35°	1161.9	1166.5	1171.1	1175.7	1173.5
37.5°	984.0	988.7	991.0	991.0	993.3
40°	820.1	824.7	824.7	829.3	826.9
42.5°	690.7	688.3	688.3	692.9	690.7
45°	579.8	577.5	577.5	577.5	577.5
47.5°	499.0	496.6	496.6	496.6	496.6
50°	434.2	432.0	432.0	432.0	432.0
52.5°	381.1	378.8	378.8	378.8	376.5
55°	332.7	332.7	330.3	332.7	330.3
57.5°	288.7	288.7	288.7	288.7	288.7
60°	258.7	256.4	256.4	256.4	256.4
62.5°	231.0	231.0	231.0	231.0	231.0
65°	205.6	205.6	205.6	205.6	205.6
67.5°	180.2	177.8	180.2	180.2	177.8
70°	154.7	152.5	154.7	154.7	154.7
72.5°	129.4	129.4	129.4	131.7	129.4
75°	106.3	108.6	108.6	108.6	106.3
77.5°	85.5	87.7	85.5	85.5	85.5
80°	67.0	64.6	64.6	64.6	67.0
82.5°	46.2	46.2	46.2	46.2	46.2
85°	27.7	27.7	27.7	27.7	27.7
87.5°	11.6	11.6	11.6	11.6	11.6
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)