

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: P580843

Luminaire Tested: **HC450D010-HM44560827-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580843
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: HC450D010-HM44560827-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4196.8 lumens
Efficiency: N/A
Efficacy: 87.4 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

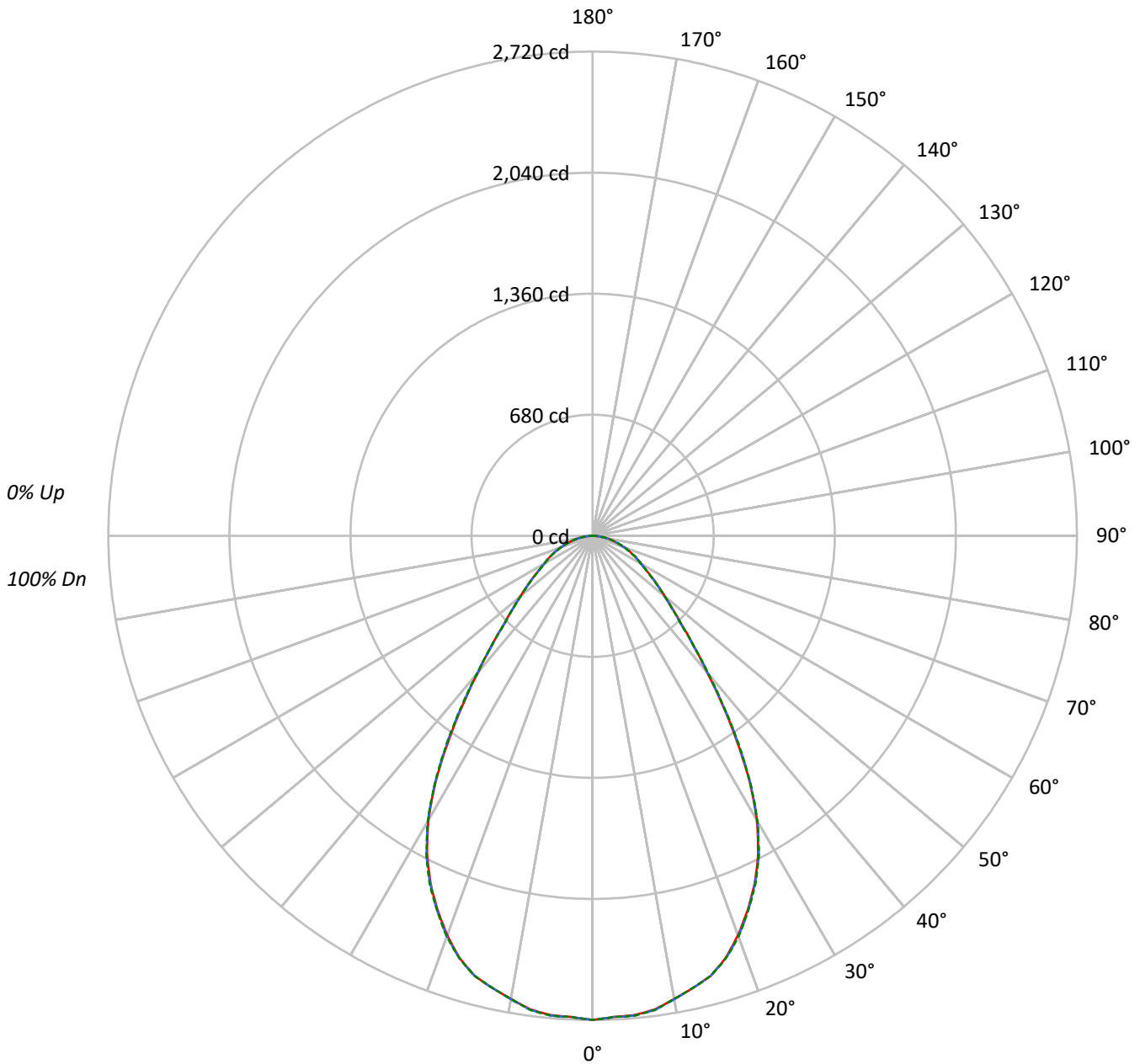
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P580843

CATALOG NUMBER: HC450D010-HM44560827-41WDW

Luminous Intensity Polar Plot





TEST NUMBER: P580843

CATALOG NUMBER: HC450D010-HM44560827-41WDW

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°	335512	335512	335512
5°	334702	335061	335061
10°	330819	331169	330819
15°	326853	326853	326853
20°	313427	314162	314542
25°	293166	293547	294309
30°	262693	263490	263490
35°	213278	214964	215401
40°	160952	161870	162304
45°	123292	122786	122786
50°	101587	101050	101050
55°	87201	86578	86578
60°	77806	77091	77091
65°	73140	73140	73140
70°	68016	68016	68016
75°	61716	63098	61716
80°	58033	55973	58033
85°	47835	47835	47835



TEST NUMBER: P580843

CATALOG NUMBER: HC450D010-HM44560827-41WDW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	256.3	6.1
10°-20°	717.2	17.1
20°-30°	985.5	23.5
30°-40°	886.1	21.1
40°-50°	559.9	13.3
50°-60°	365.6	8.7
60°-70°	247.7	5.9
70°-80°	139.4	3.3
80°-90°	39.2	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°	1959.0	46.7
0°-40°	2845.1	67.8
0°-60°	3770.6	89.8
0°-90°	4196.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4196.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2720	2720	2720	2720	2720	
5°	2703	2703	2706	2706	2706	256
15°	2560	2560	2560	2560	2560	717
25°	2154	2157	2157	2162	2162	983
35°	1416	1422	1428	1433	1430	882
45°	707	704	704	704	704	561
55°	406	406	403	406	403	367
65°	251	251	251	251	251	248
75°	130	132	132	132	130	139
85°	34	34	34	34	34	39
90°	0	0	0	0	0	



TEST NUMBER: P580843

CATALOG NUMBER: HC450D010-HM44560827-41WDW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2720.1	2720.1	2720.1	2720.1	2720.1
2.5°	2706.1	2706.1	2706.1	2706.1	2706.1
5°	2703.2	2703.2	2706.1	2706.1	2706.1
7.5°	2683.5	2686.2	2686.2	2686.2	2686.2
10°	2641.3	2641.3	2644.1	2644.1	2641.3
12.5°	2601.8	2601.8	2601.8	2604.7	2601.8
15°	2559.6	2559.6	2559.6	2559.6	2559.6
17.5°	2486.3	2489.2	2489.2	2489.2	2489.2
20°	2387.8	2393.4	2393.4	2396.3	2396.3
22.5°	2275.2	2278.0	2280.9	2283.6	2280.9
25°	2154.1	2156.9	2156.9	2162.5	2162.5
27.5°	2013.3	2016.2	2021.7	2021.7	2021.7
30°	1844.4	1847.1	1850.0	1850.0	1850.0
32.5°	1644.4	1644.4	1650.1	1652.9	1650.1
35°	1416.4	1421.9	1427.6	1433.2	1430.5
37.5°	1199.5	1205.2	1208.0	1208.0	1210.8
40°	999.6	1005.3	1005.3	1010.9	1008.0
42.5°	842.0	839.1	839.1	844.8	842.0
45°	706.8	703.9	703.9	703.9	703.9
47.5°	608.2	605.4	605.4	605.4	605.4
50°	529.4	526.6	526.6	526.6	526.6
52.5°	464.6	461.8	461.8	461.8	459.0
55°	405.5	405.5	402.6	405.5	402.6
57.5°	352.0	352.0	352.0	352.0	352.0
60°	315.4	312.5	312.5	312.5	312.5
62.5°	281.6	281.6	281.6	281.6	281.6
65°	250.6	250.6	250.6	250.6	250.6
67.5°	219.6	216.9	219.6	219.6	216.9
70°	188.6	185.9	188.6	188.6	188.6
72.5°	157.6	157.6	157.6	160.5	157.6
75°	129.5	132.4	132.4	132.4	129.5
77.5°	104.2	107.0	104.2	104.2	104.2
80°	81.7	78.8	78.8	78.8	81.7
82.5°	56.3	56.3	56.3	56.3	56.3
85°	33.8	33.8	33.8	33.8	33.8
87.5°	14.1	14.1	14.1	14.1	14.1
90°	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)