

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: P580800

Luminaire Tested: **HC4R45D010-HM44560935-42RMDC**

Issue Date: 9/23/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580800  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-13)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/23/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC4R45D010-HM44560935-42RMDC  
Description: HALO COMMERCIAL 4" ROUND, RETROFIT FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4052.1 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.02 / 0.96  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

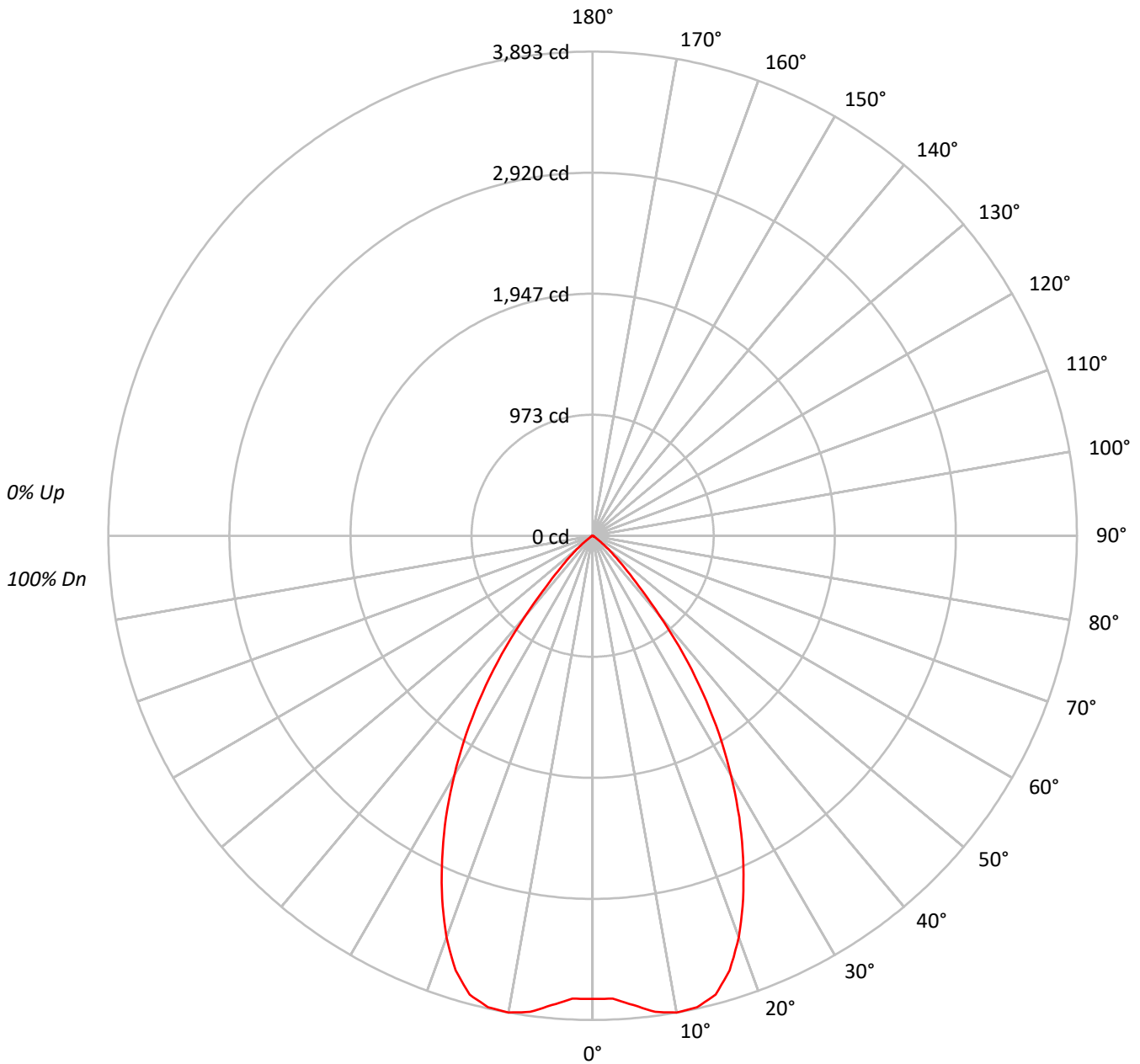
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80
4	97	89	83	79	95	88	82	78	86	81	77	84	80	77	82	78	76	74
5	92	83	77	73	90	82	76	72	80	75	72	78	74	71	77	73	70	69
6	87	78	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64
7	82	73	66	62	81	72	66	62	71	65	62	69	65	61	68	64	61	60
8	78	68	62	58	77	68	62	58	67	61	57	65	61	57	65	60	57	56
9	74	64	58	54	73	64	58	54	63	57	54	62	57	54	61	57	53	52
10	70	61	55	51	69	60	54	51	59	54	50	58	54	50	58	53	50	49

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	459191
5°	469030
10°	487542
15°	487725
20°	450949
25°	389672
30°	317015
35°	232883
40°	134610
45°	62885
50°	29072
55°	10107
60°	3207
65°	2306
70°	1911
75°	1239
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	365.4	9.0
10°-20°	1058.5	26.1
20°-30°	1303.6	32.2
30°-40°	951.7	23.5
40°-50°	310.2	7.7
50°-60°	51.8	1.3
60°-70°	8.1	0.2
70°-80°	2.8	0.1
80°-90°	0.0	0.0
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°	2727.6	67.3
0°-40°	3679.3	90.8
0°-60°	4041.3	99.7
0°-90°	4052.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4052.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3723	
5°	3788	365
15°	3819	1059
25°	2863	1304
35°	1547	952
45°	360	310
55°	47	52
65°	8	8
75°	3	3
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3722.8
2.5°	3725.4
5°	3788.1
7.5°	3861.3
10°	3892.6
12.5°	3882.1
15°	3819.4
17.5°	3662.7
20°	3435.5
22.5°	3161.1
25°	2863.2
27.5°	2552.4
30°	2225.8
32.5°	1891.5
35°	1546.6
37.5°	1199.1
40°	836.0
42.5°	546.0
45°	360.5
47.5°	237.8
50°	151.5
52.5°	88.9
55°	47.0
57.5°	18.3
60°	13.0
62.5°	10.4
65°	7.9
67.5°	5.3
70°	5.3
72.5°	2.6
75°	2.6
77.5°	2.6
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)