

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: P434831

Luminaire Tested: **HCMR4R25927ED010MMS**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434831  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-933-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/24/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCMR4R25927ED010MMS  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 25 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4440.9 lumens  
Efficiency: N/A  
Efficacy: 82.1 lumens/watt  
Spacing Criteria (0/90/45): 0.39 / 0.39 / 0.39  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

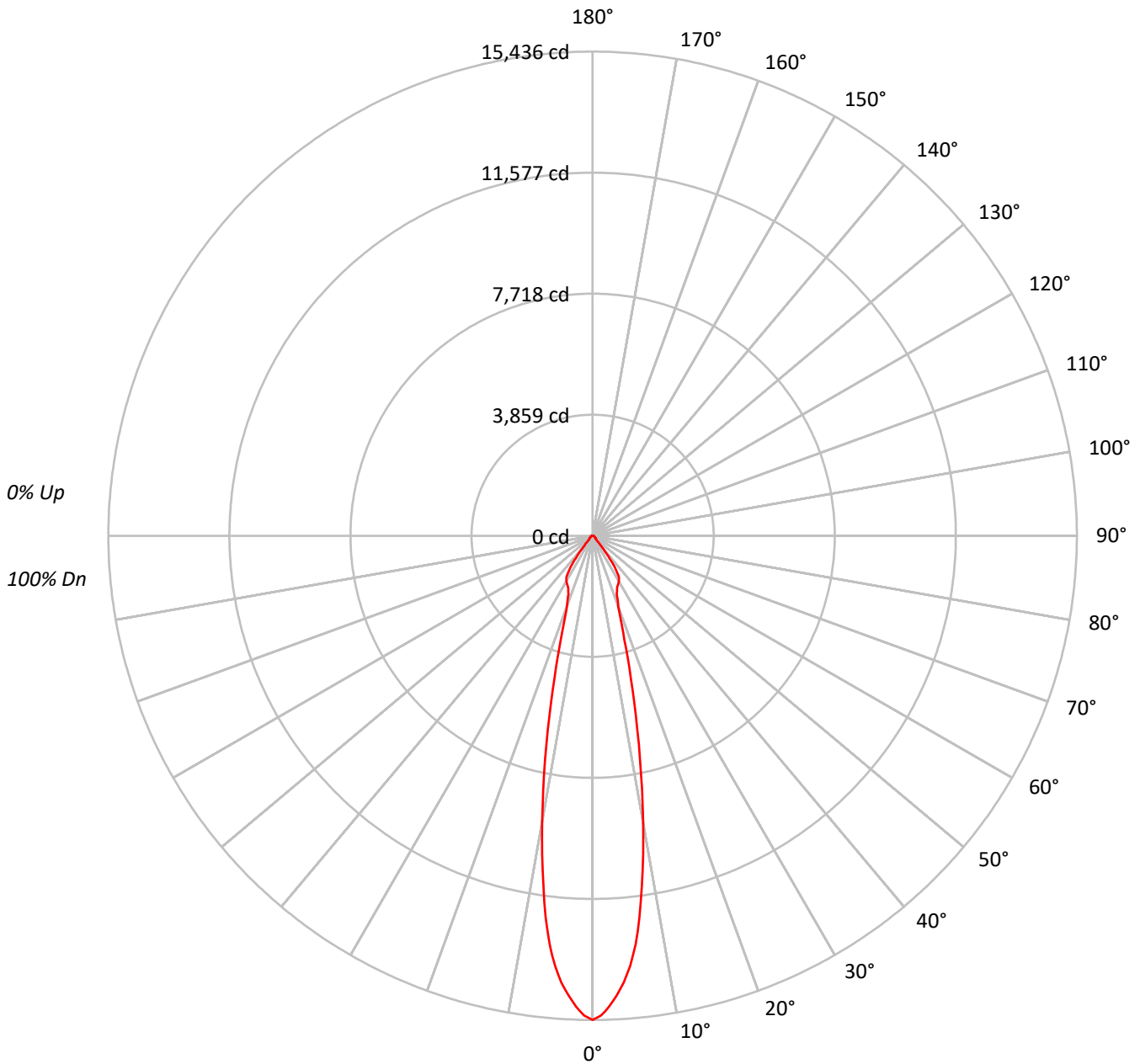
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	88
3	104	98	93	90	102	97	92	89	94	91	88	92	89	86	89	87	85	83
4	100	93	88	84	98	92	87	83	89	85	82	88	84	81	86	83	80	79
5	95	88	83	79	94	87	82	78	85	81	78	84	80	77	82	79	76	75
6	92	84	78	75	90	83	78	74	81	77	74	80	76	73	79	76	73	72
7	88	80	75	71	87	79	74	71	78	74	70	77	73	70	76	72	70	68
8	85	76	71	68	84	76	71	67	75	70	67	74	70	67	73	69	67	65
9	82	73	68	65	81	73	68	65	72	68	64	71	67	64	70	67	64	63
10	79	70	65	62	78	70	65	62	69	65	62	69	65	62	68	64	62	60

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

	0°
0°	7616004
5°	6816420
10°	4640477
15°	2398438
20°	1251126
25°	1004225
30°	953174
35°	742281
40°	256208
45°	111569
50°	95792
55°	83868
60°	73119
65°	68295
70°	73137
75°	89214
80°	110809
85°	22077



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1165.6	26.2
10°-20°	1339.7	30.2
20°-30°	874.9	19.7
30°-40°	708.1	15.9
40°-50°	143.6	3.2
50°-60°	86.6	1.9
60°-70°	59.9	1.3
70°-80°	50.0	1.1
80°-90°	12.7	0.3
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°	3380.1	76.1
0°-40°	4088.2	92.1
0°-60°	4318.3	97.2
0°-90°	4440.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4440.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	15436	
5°	13763	###
15°	4696	1340
25°	1845	875
35°	1232	708
45°	160	144
55°	98	87
65°	58	60
75°	47	50
85°	4	13
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	15436.4
1°	15299.9
2°	15023.0
3°	14675.9
4°	14274.2
5°	13763.2
6°	13100.2
7°	12261.7
8°	11282.8
9°	10284.4
10°	9262.6
11°	8244.7
12°	7269.7
13°	6337.6
14°	5483.5
15°	4695.6
16°	4056.0
17°	3467.1
18°	3006.9
19°	2648.1
20°	2382.9
22.5°	2012.4
25°	1844.7
26°	1801.8
27°	1770.6
28°	1739.4
29°	1704.3
30°	1673.1
32.5°	1556.1
35°	1232.4
37.5°	791.7
40°	397.8
42.5°	191.1
45°	159.9
47.5°	140.4
50°	124.8
52.5°	109.2
55°	97.5
57.5°	81.9
60°	74.1
62.5°	66.3
65°	58.5
67.5°	54.6



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	46.8
77.5°	46.8
80°	39.0
82.5°	23.4
85°	3.9
87.5°	0.0
90°	0.0



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— 0°-180°







70°		50.7
72.5°		50.7



(END OF REPORT)