

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: P434837

Luminaire Tested: **HCMR4R25935ED010MMS**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434837  
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: HCMR4R25935ED010MMS  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 25 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4974.7 lumens  
Efficiency: N/A  
Efficacy: 92.0 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

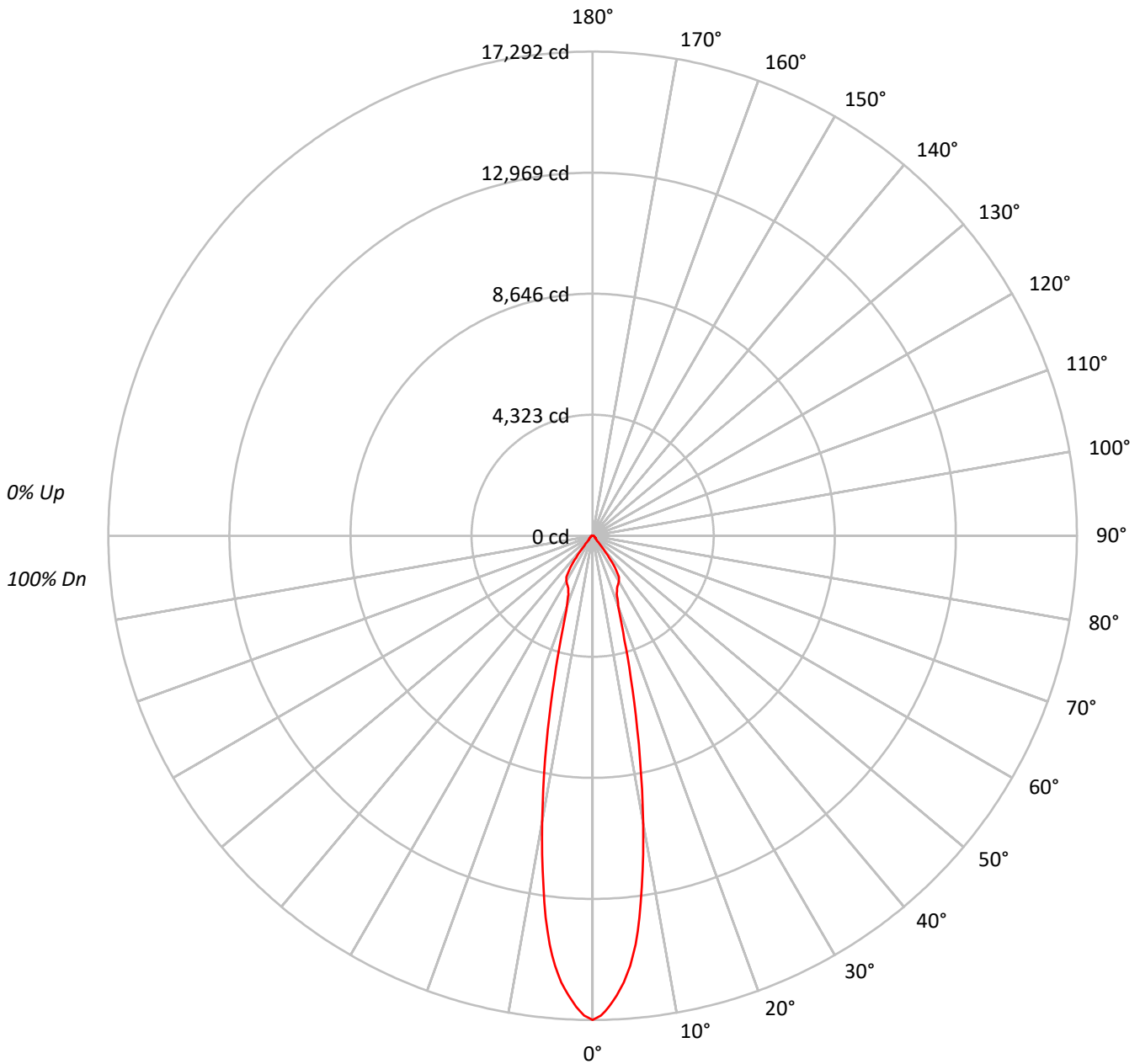
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8531519
5°	7635835
10°	5198280
15°	2686775
20°	1401551
25°	1124970
30°	1067742
35°	831543
40°	286994
45°	124966
50°	107305
55°	93932
60°	81901
65°	76467
70°	81937
75°	99889
80°	124163
85°	24908



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1305.7	26.2
10°-20°	1500.7	30.2
20°-30°	980.1	19.7
30°-40°	793.2	15.9
40°-50°	160.8	3.2
50°-60°	97.0	1.9
60°-70°	67.1	1.3
70°-80°	56.0	1.1
80°-90°	14.2	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°	3786.5	76.1
0°-40°	4579.7	92.1
0°-60°	4837.5	97.2
0°-90°	4974.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4974.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	17292	
5°	15418	###
15°	5260	1501
25°	2066	980
35°	1381	793
45°	179	161
55°	109	97
65°	66	67
75°	52	56
85°	4	14
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	17292.0
1°	17139.0
2°	16828.9
3°	16440.0
4°	15990.0
5°	15417.7
6°	14675.0
7°	13735.7
8°	12639.1
9°	11520.7
10°	10376.0
11°	9235.8
12°	8143.6
13°	7099.4
14°	6142.6
15°	5260.1
16°	4543.6
17°	3883.9
18°	3368.4
19°	2966.5
20°	2669.4
22.5°	2254.3
25°	2066.5
26°	2018.4
27°	1983.5
28°	1948.5
29°	1909.2
30°	1874.2
32.5°	1743.2
35°	1380.6
37.5°	886.9
40°	445.6
42.5°	214.1
45°	179.1
47.5°	157.3
50°	139.8
52.5°	122.3
55°	109.2
57.5°	91.7
60°	83.0
62.5°	74.3
65°	65.5
67.5°	61.2



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	52.4
77.5°	52.4
80°	43.7
82.5°	26.2
85°	4.4
87.5°	0.0
90°	0.0



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— 0°-180°







70°		56.8
72.5°		56.8



(END OF REPORT)