

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: P434609

Luminaire Tested: **HCM2R15935ED010MMS**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434609  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-933-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/24/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCM2R15935ED010MMS  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 15 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2397.3 lumens  
Efficiency: N/A  
Efficacy: 84.4 lumens/watt  
Spacing Criteria (0/90/45): 0.25 / 0.25 / 0.25  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

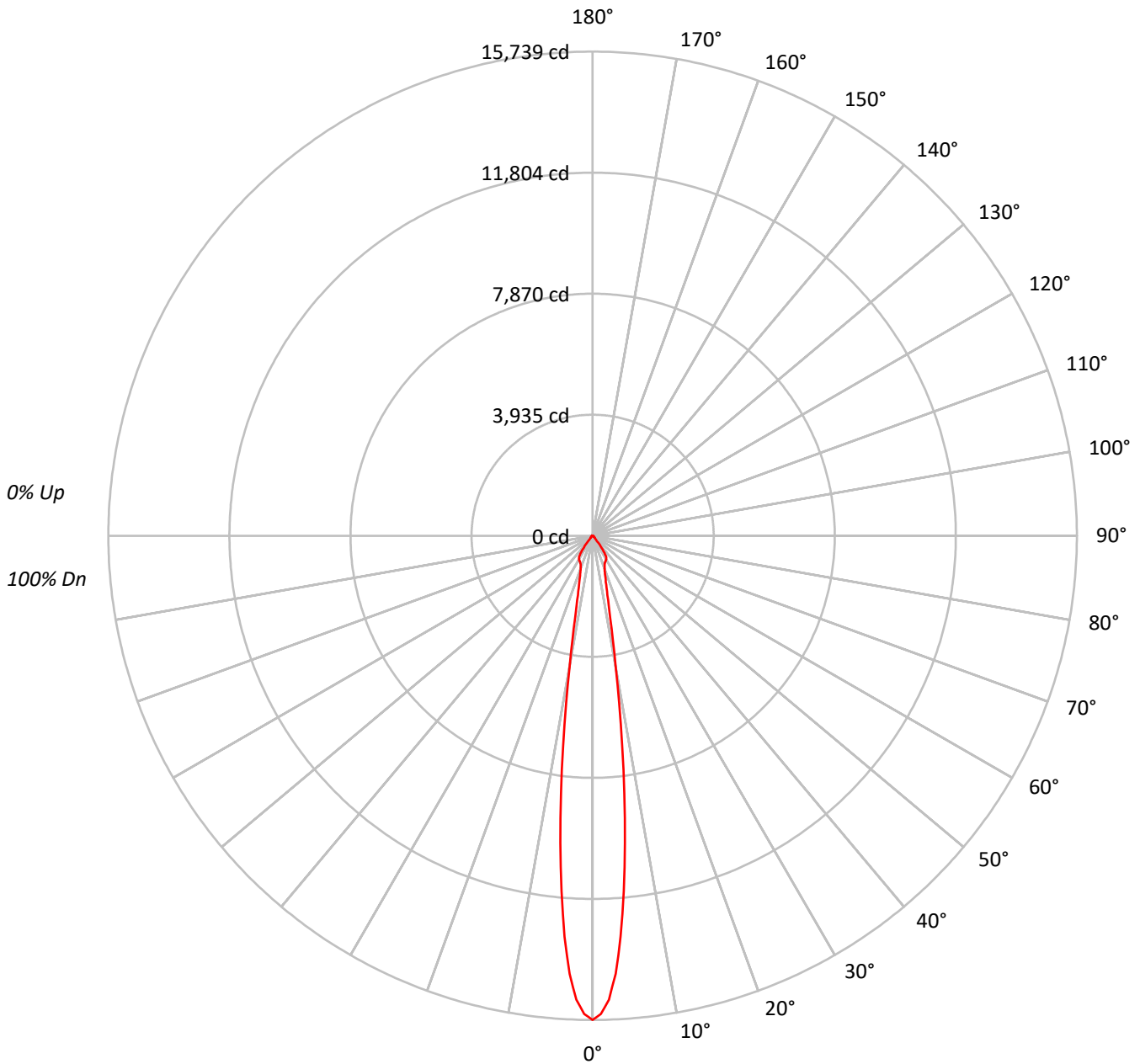
Input Watts (W): 28.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	109	107	105	105	104	102	102	100	99	98	97	96	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	89
3	105	99	95	91	103	98	94	90	95	92	89	93	90	88	91	88	86	85
4	101	94	89	86	99	93	88	85	91	87	84	89	86	83	87	84	82	81
5	97	90	85	81	95	89	84	81	87	83	80	85	82	79	84	81	79	77
6	93	86	81	77	92	85	80	77	83	79	76	82	79	76	81	78	75	74
7	90	82	77	74	89	82	77	73	80	76	73	79	75	73	78	75	72	71
8	87	79	74	71	86	78	74	70	77	73	70	77	73	70	76	72	70	68
9	84	76	71	68	83	76	71	68	75	71	68	74	70	67	73	70	67	66
10	81	74	69	66	81	73	69	66	72	68	65	72	68	65	71	68	65	64

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

	0°
0°	7765498
5°	5745263
10°	2166685
15°	890654
20°	597552
25°	519506
30°	503221
35°	392402
40°	131839
45°	64123
50°	56109
55°	39482
60°	35030
65°	34089
70°	36208
75°	47847
80°	59382
85°	11888



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	854.4	35.6
10°-20°	537.3	22.4
20°-30°	447.4	18.7
30°-40°	373.6	15.6
40°-50°	79.3	3.3
50°-60°	43.7	1.8
60°-70°	29.2	1.2
70°-80°	25.4	1.1
80°-90°	6.8	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°	1839.2	76.7
0°-40°	2212.8	92.3
0°-60°	2335.8	97.4
0°-90°	2397.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2397.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	15739	
5°	11600	854
15°	1744	537
25°	954	447
35°	652	374
45°	92	79
55°	46	44
65°	29	29
75°	25	25
85°	2	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	15739.4
1°	15549.4
2°	15087.9
3°	14263.0
4°	13062.2
5°	11600.4
6°	10036.3
7°	8445.0
8°	6889.3
9°	5513.1
10°	4324.8
11°	3410.2
12°	2762.8
13°	2309.6
14°	1986.0
15°	1743.7
16°	1557.9
17°	1413.8
18°	1301.0
19°	1213.3
20°	1138.1
22.5°	1010.7
25°	954.3
26°	937.6
27°	925.1
28°	912.6
29°	898.0
30°	883.3
32.5°	824.9
35°	651.5
37.5°	415.6
40°	204.7
42.5°	98.1
45°	91.9
47.5°	85.6
50°	73.1
52.5°	56.4
55°	45.9
57.5°	39.7
60°	35.5
62.5°	31.3
65°	29.2
67.5°	27.1



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	25.1
77.5°	23.0
80°	20.9
82.5°	12.5
85°	2.1
87.5°	0.0
90°	0.0



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— 0°-180°







70°		25.1
72.5°		25.1



(END OF REPORT)