

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: P434606

Luminaire Tested: **HCM2R15930ED010MMS**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434606  
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: HCM2R15930ED010MMS  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 15 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2279.8 lumens  
Efficiency: N/A  
Efficacy: 80.3 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

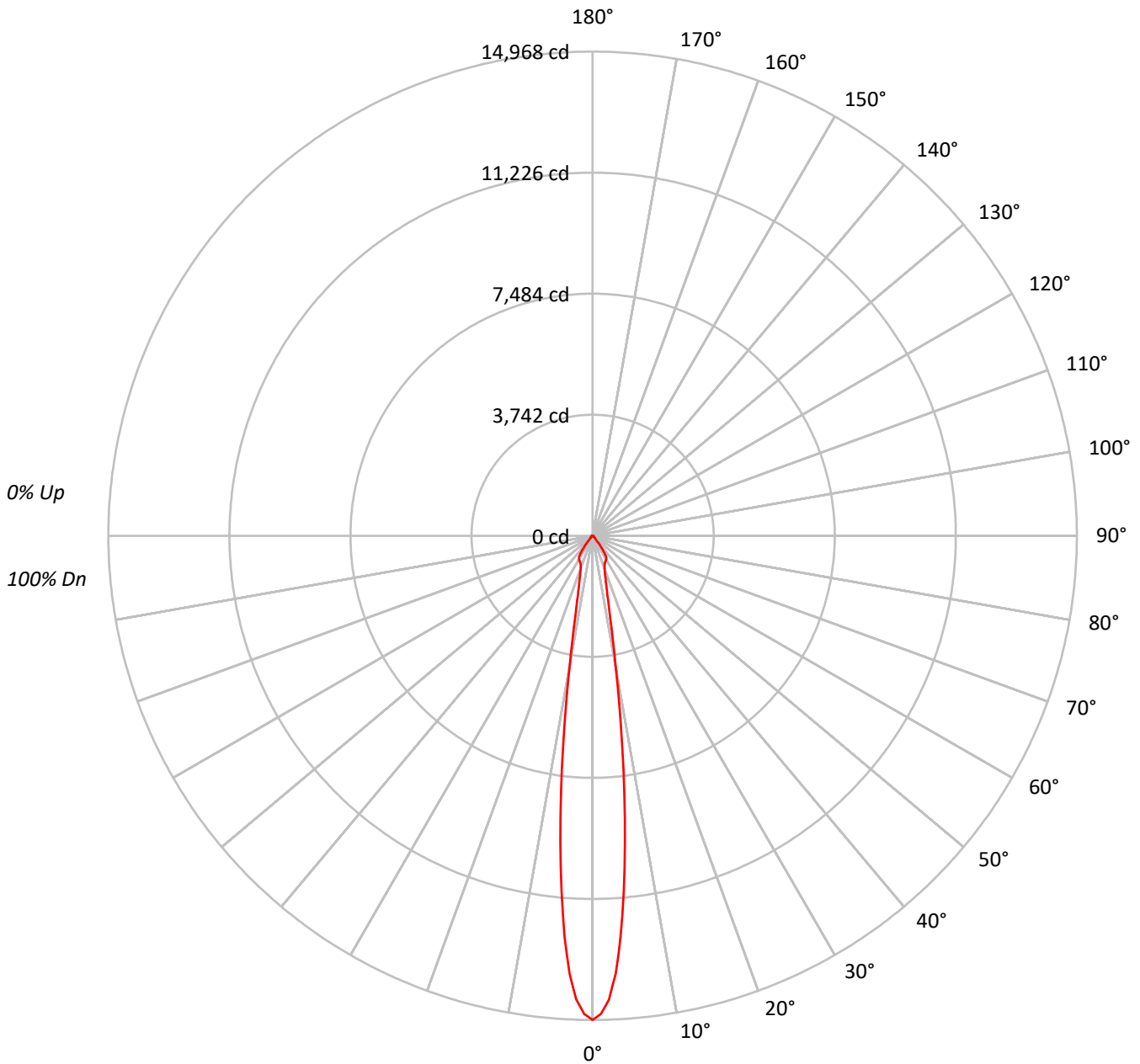
Input Watts (W): 28.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	69
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°	7385053
5°	5463804
10°	2060575
15°	847033
20°	568307
25°	494083
30°	478610
35°	373188
40°	125334
45°	60983
50°	53346
55°	37590
60°	33352
65°	32455
70°	34333
75°	45369
80°	56541
85°	11322



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	812.6	35.6
10°-20°	511.0	22.4
20°-30°	425.5	18.7
30°-40°	355.3	15.6
40°-50°	75.4	3.3
50°-60°	41.6	1.8
60°-70°	27.8	1.2
70°-80°	24.1	1.1
80°-90°	6.5	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°	1749.1	76.7
0°-40°	2104.4	92.3
0°-60°	2221.4	97.4
0°-90°	2279.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2279.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	14968	
5°	11032	813
15°	1658	511
25°	908	426
35°	620	355
45°	87	75
55°	44	42
65°	28	28
75°	24	24
85°	2	6
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	14968.3
1°	14787.6
2°	14348.7
3°	13564.3
4°	12422.3
5°	11032.1
6°	9544.6
7°	8031.3
8°	6551.8
9°	5243.0
10°	4113.0
11°	3243.1
12°	2627.5
13°	2196.5
14°	1888.7
15°	1658.3
16°	1481.5
17°	1344.5
18°	1237.3
19°	1153.9
20°	1082.4
22.5°	961.2
25°	907.6
26°	891.7
27°	879.8
28°	867.9
29°	854.0
30°	840.1
32.5°	784.5
35°	619.6
37.5°	395.2
40°	194.6
42.5°	93.3
45°	87.4
47.5°	81.4
50°	69.5
52.5°	53.6
55°	43.7
57.5°	37.7
60°	33.8
62.5°	29.8
65°	27.8
67.5°	25.8



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	23.8
77.5°	21.8
80°	19.9
82.5°	11.9
85°	2.0
87.5°	0.0
90°	0.0



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— 0°-180°







70°		23.8
72.5°		23.8



(END OF REPORT)