

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: P434756

Luminaire Tested: **HCMR2R15940ED010MMS**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434756  
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: HCMR2R15940ED010MMS  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 15 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2467.9 lumens  
Efficiency: N/A  
Efficacy: 86.9 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

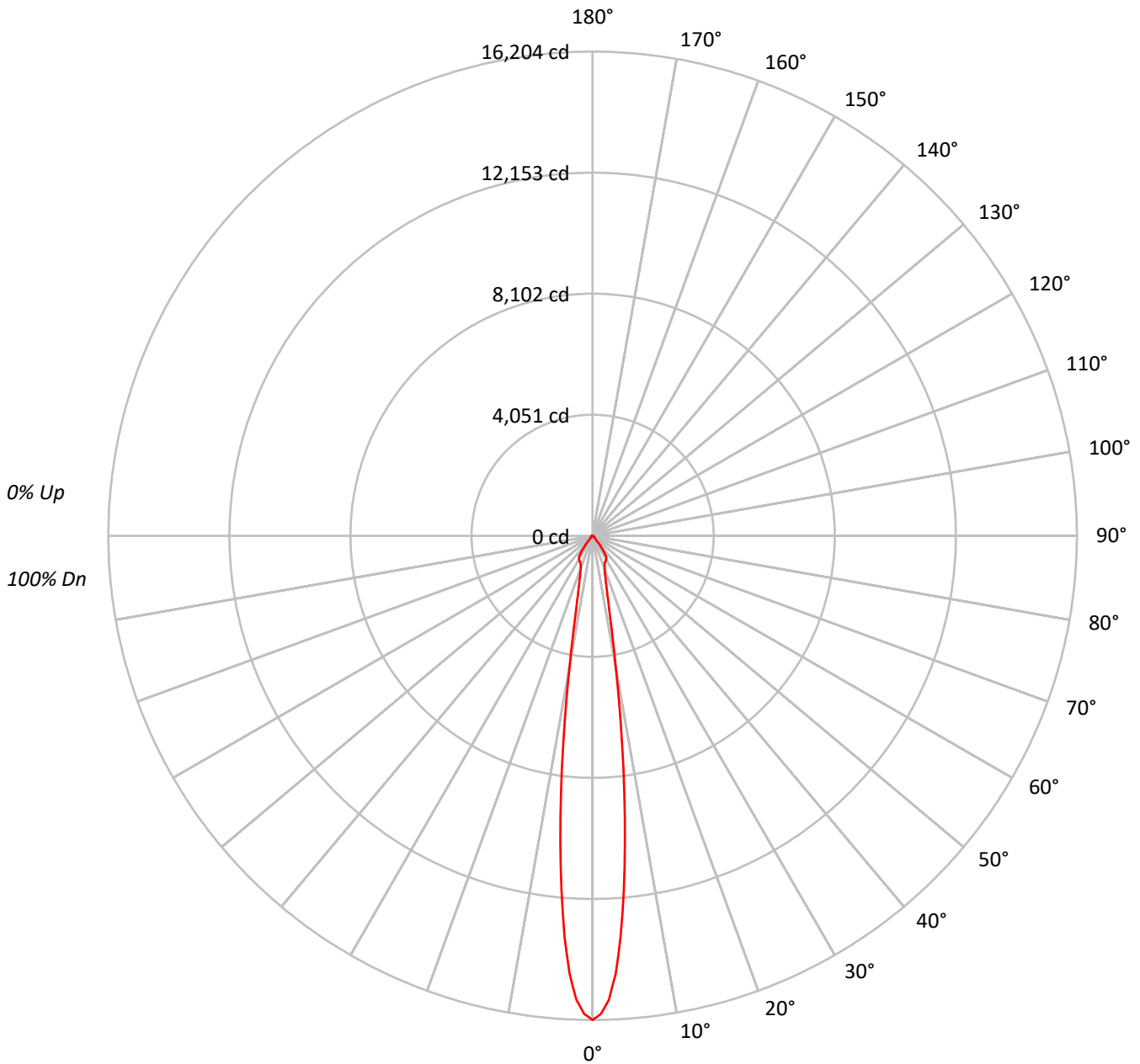
Input Watts (W): 28.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	7994969
5°	5915039
10°	2230711
15°	916960
20°	615194
25°	534857
30°	518090
35°	404026
40°	135704
45°	66007
50°	57721
55°	40687
60°	36017
65°	35140
70°	37218
75°	49182
80°	61087
85°	11888



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	879.7	35.6
10°-20°	553.2	22.4
20°-30°	460.7	18.7
30°-40°	384.6	15.6
40°-50°	81.6	3.3
50°-60°	45.0	1.8
60°-70°	30.1	1.2
70°-80°	26.1	1.1
80°-90°	7.0	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°	1893.5	76.7
0°-40°	2278.2	92.3
0°-60°	2404.8	97.4
0°-90°	2467.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2467.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	16204	
5°	11943	880
15°	1795	553
25°	982	461
35°	671	385
45°	95	82
55°	47	45
65°	30	30
75°	26	26
85°	2	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	16204.5
1°	16008.8
2°	15533.7
3°	14684.4
4°	13448.2
5°	11943.2
6°	10332.9
7°	8694.6
8°	7092.8
9°	5676.0
10°	4452.6
11°	3510.9
12°	2844.4
13°	2377.9
14°	2044.6
15°	1795.2
16°	1603.9
17°	1455.5
18°	1339.4
19°	1249.1
20°	1171.7
22.5°	1040.6
25°	982.5
26°	965.3
27°	952.4
28°	939.5
29°	924.5
30°	909.4
32.5°	849.2
35°	670.8
37.5°	427.8
40°	210.7
42.5°	101.0
45°	94.6
47.5°	88.1
50°	75.2
52.5°	58.0
55°	47.3
57.5°	40.8
60°	36.5
62.5°	32.2
65°	30.1
67.5°	27.9



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	25.8
77.5°	23.6
80°	21.5
82.5°	12.9
85°	2.1
87.5°	0.0
90°	0.0



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— 0°-180°







70°		25.8
72.5°		25.8



(END OF REPORT)