

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: P434717

Luminaire Tested: **HCMR1R15935ED010MMS**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434717  
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: HCMR1R15935ED010MMS  
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: 1285.9 lumens  
Efficiency: N/A  
Efficacy: 89.9 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

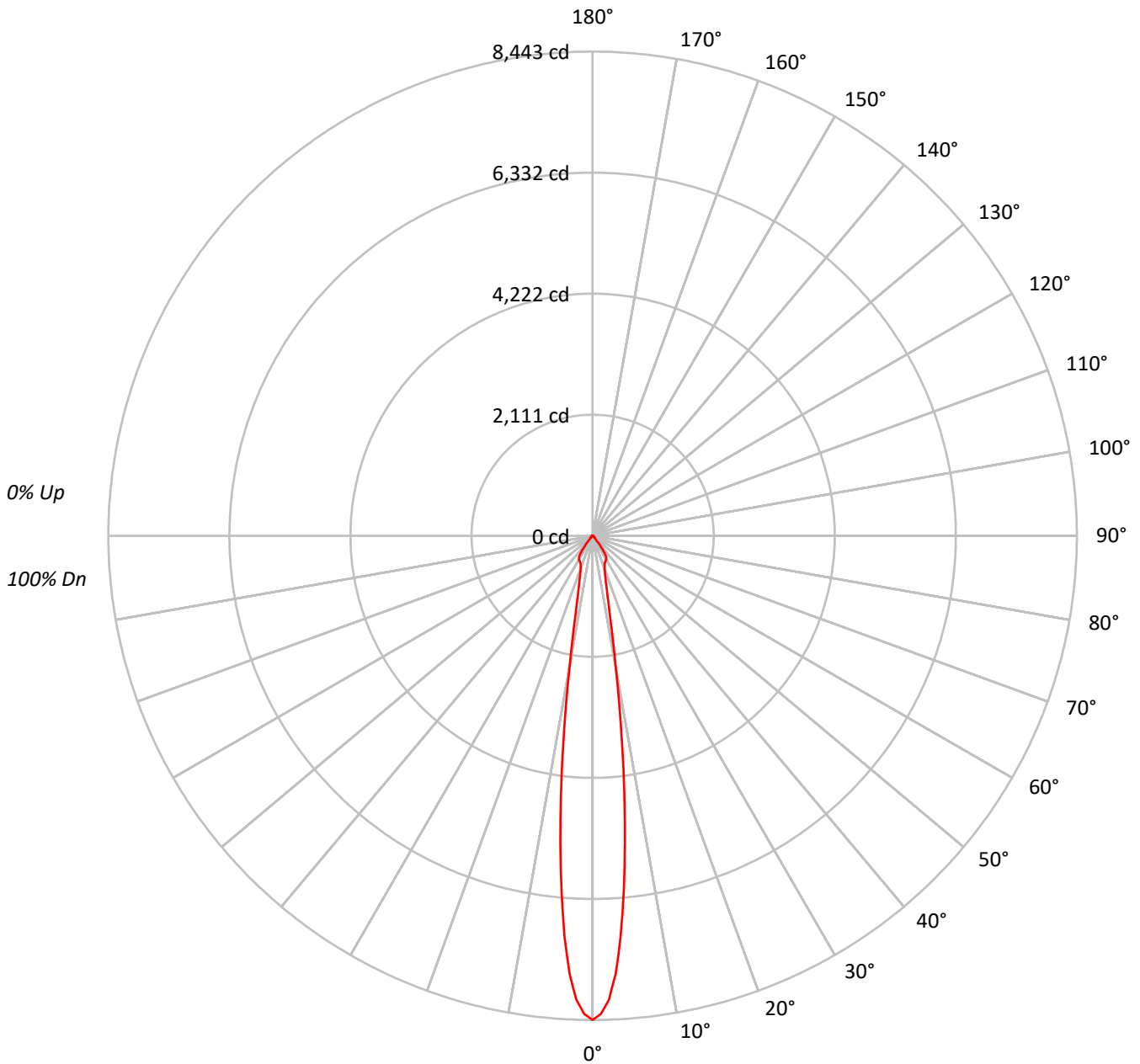
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4165801
5°	3082029
10°	1162349
15°	477787
20°	320539
25°	278725
30°	269983
35°	210506
40°	70718
45°	34399
50°	30088
55°	21160
60°	18748
65°	18329
70°	19330
75°	25544
80°	31822
85°	6227



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	458.3	35.6
10°-20°	288.3	22.4
20°-30°	240.0	18.7
30°-40°	200.4	15.6
40°-50°	42.5	3.3
50°-60°	23.4	1.8
60°-70°	15.7	1.2
70°-80°	13.6	1.1
80°-90°	3.6	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°	986.6	76.7
0°-40°	1187.1	92.3
0°-60°	1253.0	97.4
0°-90°	1285.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1285.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	8443	
5°	6223	458
15°	935	288
25°	512	240
35°	350	200
45°	49	43
55°	25	23
65°	16	16
75°	13	14
85°	1	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	8443.4
1°	8341.4
2°	8093.9
3°	7651.4
4°	7007.2
5°	6223.0
6°	5384.0
7°	4530.3
8°	3695.7
9°	2957.5
10°	2320.1
11°	1829.4
12°	1482.1
13°	1239.0
14°	1065.4
15°	935.4
16°	835.7
17°	758.4
18°	697.9
19°	650.9
20°	610.5
22.5°	542.2
25°	512.0
26°	503.0
27°	496.3
28°	489.6
29°	481.7
30°	473.9
32.5°	442.5
35°	349.5
37.5°	222.9
40°	109.8
42.5°	52.7
45°	49.3
47.5°	45.9
50°	39.2
52.5°	30.2
55°	24.6
57.5°	21.3
60°	19.0
62.5°	16.8
65°	15.7
67.5°	14.6



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	13.4
77.5°	12.3
80°	11.2
82.5°	6.7
85°	1.1
87.5°	0.0
90°	0.0



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— 0°-180°







70°		13.4
72.5°		13.4



(END OF REPORT)