

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: P434782

Luminaire Tested: **HCMR3R15927ED010MB**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434782  
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: HCMR3R15927ED010MB  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 15 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3440.1 lumens  
Efficiency: N/A  
Efficacy: 84.1 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

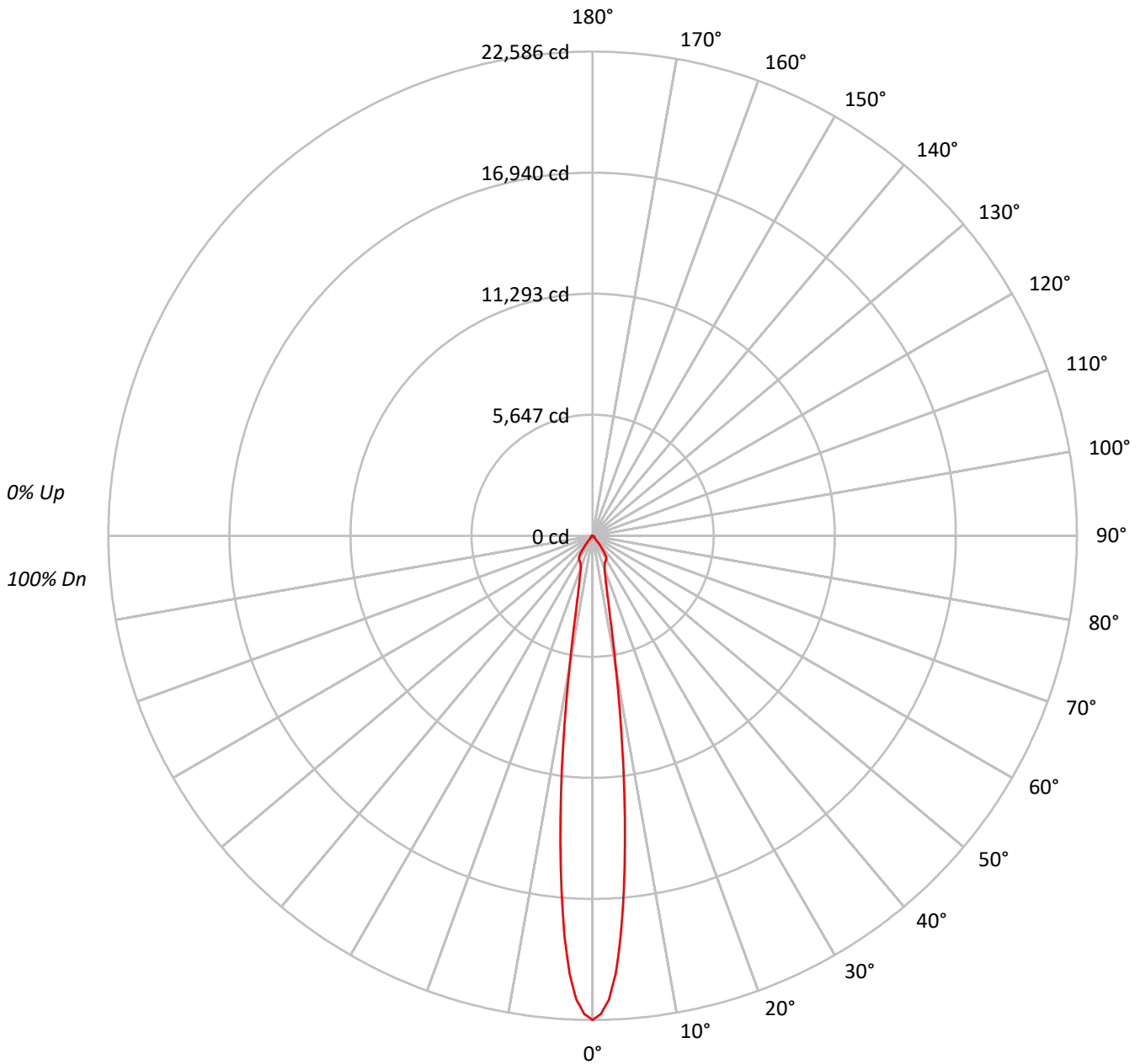
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
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°	11143322
5°	8244366
10°	3109199
15°	1278084
20°	857501
25°	745534
30°	722159
35°	563155
40°	189161
45°	92032
50°	80517
55°	56686
60°	50226
65°	49032
70°	51932
75°	68626
80°	85238
85°	16983



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1226.1	35.6
10°-20°	771.1	22.4
20°-30°	642.1	18.7
30°-40°	536.1	15.6
40°-50°	113.8	3.3
50°-60°	62.7	1.8
60°-70°	41.9	1.2
70°-80°	36.5	1.1
80°-90°	9.8	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°	2639.2	76.7
0°-40°	3175.4	92.3
0°-60°	3351.9	97.4
0°-90°	3440.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3440.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	22586	
5°	16646	###
15°	2502	771
25°	1370	642
35°	935	536
45°	132	114
55°	66	63
65°	42	42
75°	36	36
85°	3	10
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	22585.7
1°	22313.0
2°	21650.8
3°	20467.1
4°	18744.0
5°	16646.4
6°	14401.9
7°	12118.4
8°	9885.9
9°	7911.1
10°	6206.1
11°	4893.5
12°	3964.6
13°	3314.3
14°	2849.8
15°	2502.2
16°	2235.5
17°	2028.7
18°	1866.9
19°	1741.1
20°	1633.2
22.5°	1450.4
25°	1369.5
26°	1345.5
27°	1327.5
28°	1309.5
29°	1288.6
30°	1267.6
32.5°	1183.7
35°	935.0
37.5°	596.3
40°	293.7
42.5°	140.8
45°	131.9
47.5°	122.9
50°	104.9
52.5°	80.9
55°	65.9
57.5°	56.9
60°	50.9
62.5°	44.9
65°	42.0
67.5°	39.0



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	36.0
77.5°	33.0
80°	30.0
82.5°	18.0
85°	3.0
87.5°	0.0
90°	0.0



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— 0°-180°







70°		36.0
72.5°		36.0



(END OF REPORT)