

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: P434646

Luminaire Tested: **HCM3R15935ED010MW**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434646  
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: HCM3R15935ED010MW  
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: 3853.6 lumens  
Efficiency: N/A  
Efficacy: 94.2 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

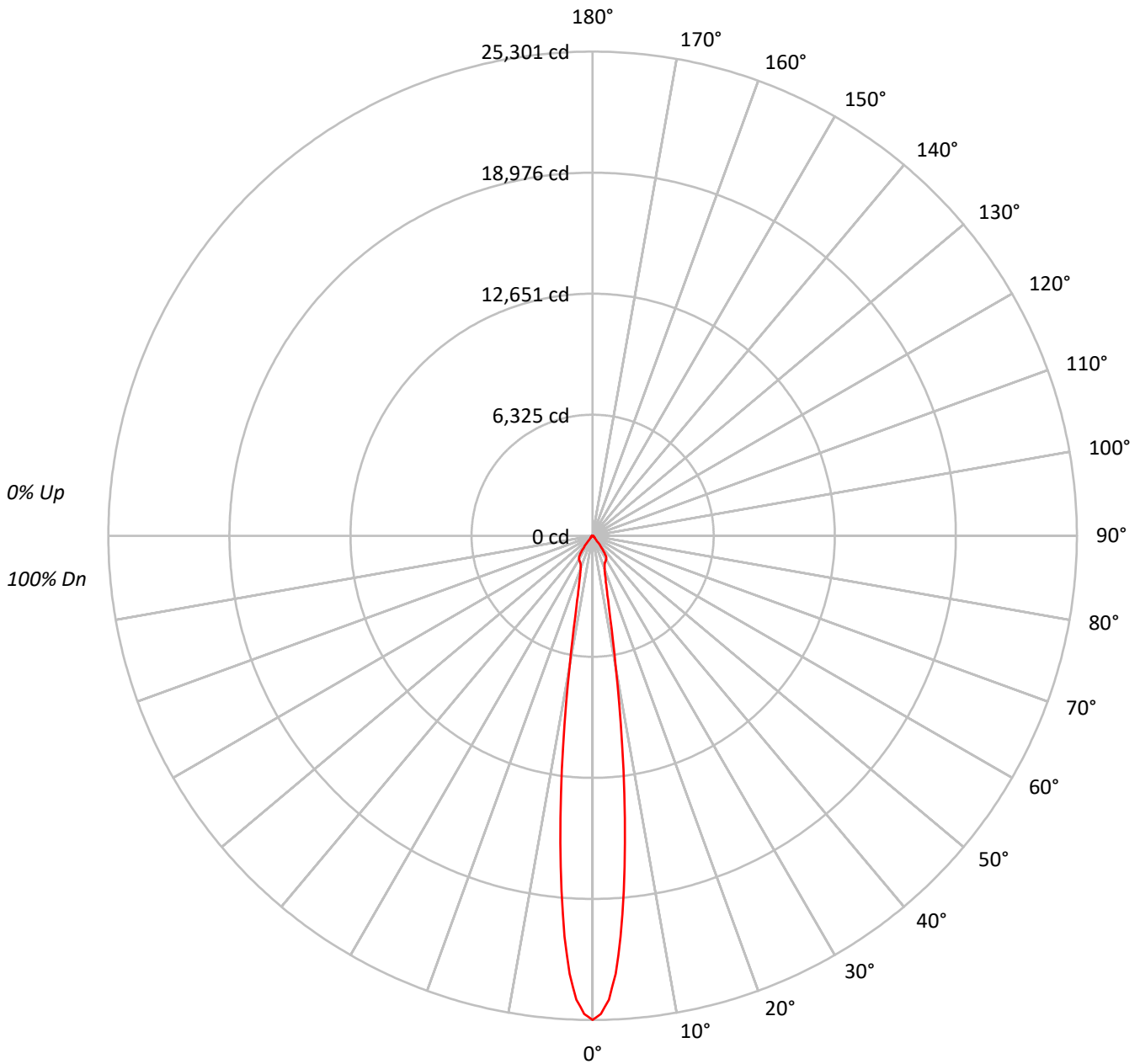
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	12482848
5°	9235389
10°	3482938
15°	1431728
20°	960567
25°	835140
30°	808982
35°	630794
40°	211896
45°	103057
50°	90189
55°	63567
60°	56344
65°	54869
70°	58135
75°	76823
80°	95466
85°	19247



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1373.4	35.6
10°-20°	863.8	22.4
20°-30°	719.3	18.7
30°-40°	600.5	15.6
40°-50°	127.5	3.3
50°-60°	70.3	1.8
60°-70°	47.0	1.2
70°-80°	40.8	1.1
80°-90°	10.9	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°	2956.5	76.7
0°-40°	3557.0	92.3
0°-60°	3754.8	97.4
0°-90°	3853.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3853.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	25301	
5°	18647	###
15°	2803	864
25°	1534	719
35°	1047	601
45°	148	127
55°	74	70
65°	47	47
75°	40	41
85°	3	11
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	25300.7
1°	24995.3
2°	24253.4
3°	22927.4
4°	20997.2
5°	18647.4
6°	16133.1
7°	13575.2
8°	11074.3
9°	8862.1
10°	6952.1
11°	5481.8
12°	4441.1
13°	3712.7
14°	3192.4
15°	2803.0
16°	2504.2
17°	2272.6
18°	2091.3
19°	1950.3
20°	1829.5
22.5°	1624.7
25°	1534.1
26°	1507.2
27°	1487.1
28°	1467.0
29°	1443.5
30°	1420.0
32.5°	1326.0
35°	1047.3
37.5°	668.0
40°	329.0
42.5°	157.8
45°	147.7
47.5°	137.6
50°	117.5
52.5°	90.6
55°	73.9
57.5°	63.8
60°	57.1
62.5°	50.4
65°	47.0
67.5°	43.6



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	40.3
77.5°	36.9
80°	33.6
82.5°	20.1
85°	3.4
87.5°	0.0
90°	0.0



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— 0°-180°







70°	40.3
72.5°	40.3



(END OF REPORT)