

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: P434787

Luminaire Tested: **HCMR3R15930ED010MW**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434787  
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: HCMR3R15930ED010MW  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 15 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

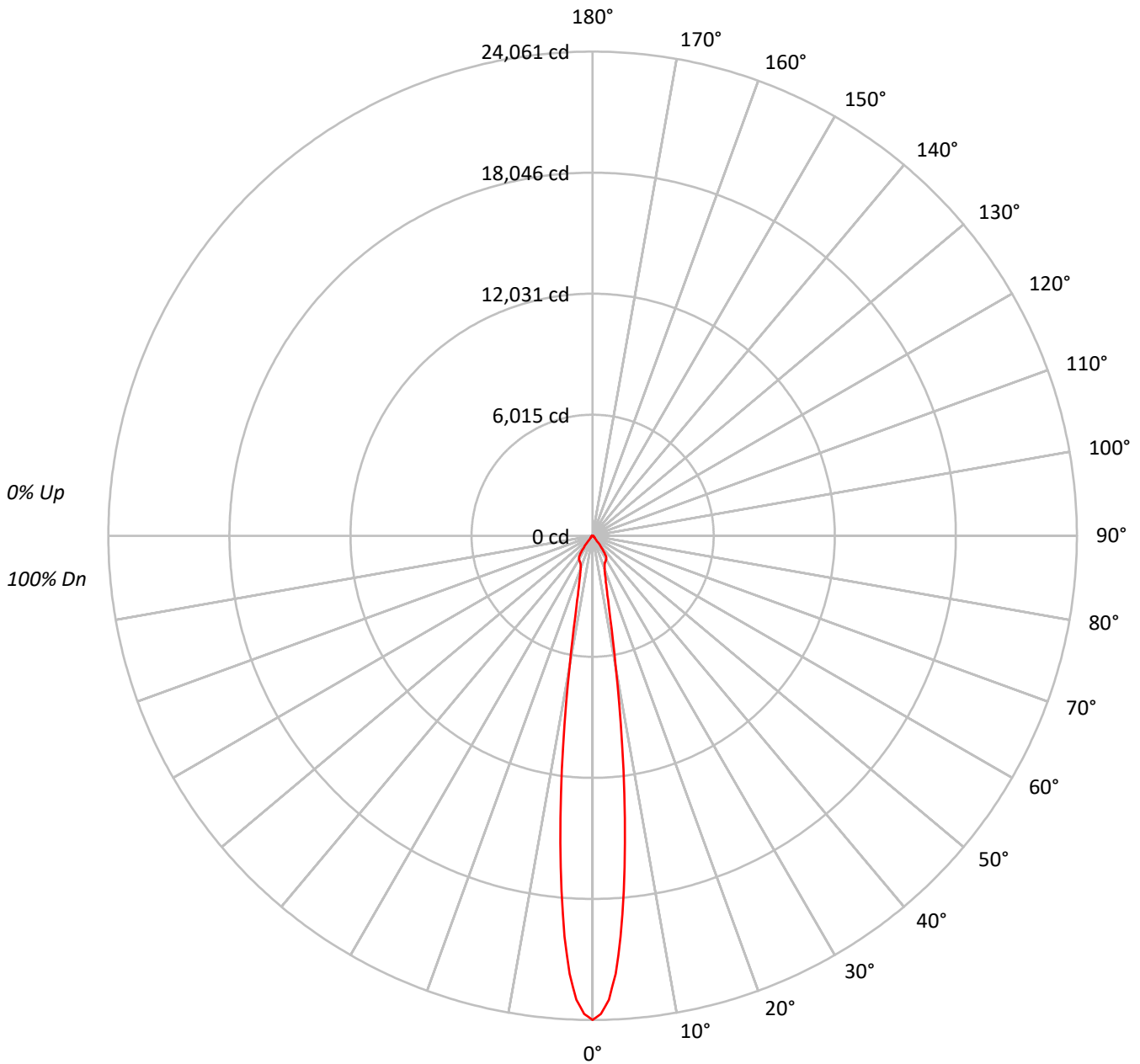
Lumens per Lamp: N/A  
Luminaire Lumens: 3664.7 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 0.25 / 0.25 / 0.25  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

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°	11871353
5°	8782965
10°	3312300
15°	1361597
20°	913523
25°	794202
30°	769330
35°	599896
40°	201527
45°	98033
50°	85737
55°	60385
60°	53581
65°	52184
70°	55249
75°	73010
80°	90636
85°	18115



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1306.2	35.6
10°-20°	821.5	22.4
20°-30°	684.0	18.7
30°-40°	571.1	15.6
40°-50°	121.2	3.3
50°-60°	66.8	1.8
60°-70°	44.7	1.2
70°-80°	38.8	1.1
80°-90°	10.4	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°	2811.7	76.7
0°-40°	3382.8	92.3
0°-60°	3570.9	97.4
0°-90°	3664.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3664.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	24061	
5°	17734	###
15°	2666	821
25°	1459	684
35°	996	571
45°	140	121
55°	70	67
65°	45	45
75°	38	39
85°	3	10
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	24061.3
1°	23770.8
2°	23065.2
3°	21804.2
4°	19968.6
5°	17733.9
6°	15342.8
7°	12910.1
8°	10531.8
9°	8428.0
10°	6611.5
11°	5213.2
12°	4223.6
13°	3530.8
14°	3036.0
15°	2665.7
16°	2381.5
17°	2161.3
18°	1988.9
19°	1854.8
20°	1739.9
22.5°	1545.1
25°	1458.9
26°	1433.4
27°	1414.2
28°	1395.1
29°	1372.7
30°	1350.4
32.5°	1261.0
35°	996.0
37.5°	635.3
40°	312.9
42.5°	150.0
45°	140.5
47.5°	130.9
50°	111.7
52.5°	86.2
55°	70.2
57.5°	60.7
60°	54.3
62.5°	47.9
65°	44.7
67.5°	41.5



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	38.3
77.5°	35.1
80°	31.9
82.5°	19.2
85°	3.2
87.5°	0.0
90°	0.0



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— 0°-180°







70°	38.3
72.5°	38.3



(END OF REPORT)