

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: P434807

Luminaire Tested: **HCMR3R40927ED010MMS**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434807  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-933-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/24/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCMR3R40927ED010MMS  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 40 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3356.1 lumens  
Efficiency: N/A  
Efficacy: 82.1 lumens/watt  
Spacing Criteria (0/90/45): 0.72 / 0.72 / 0.76  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

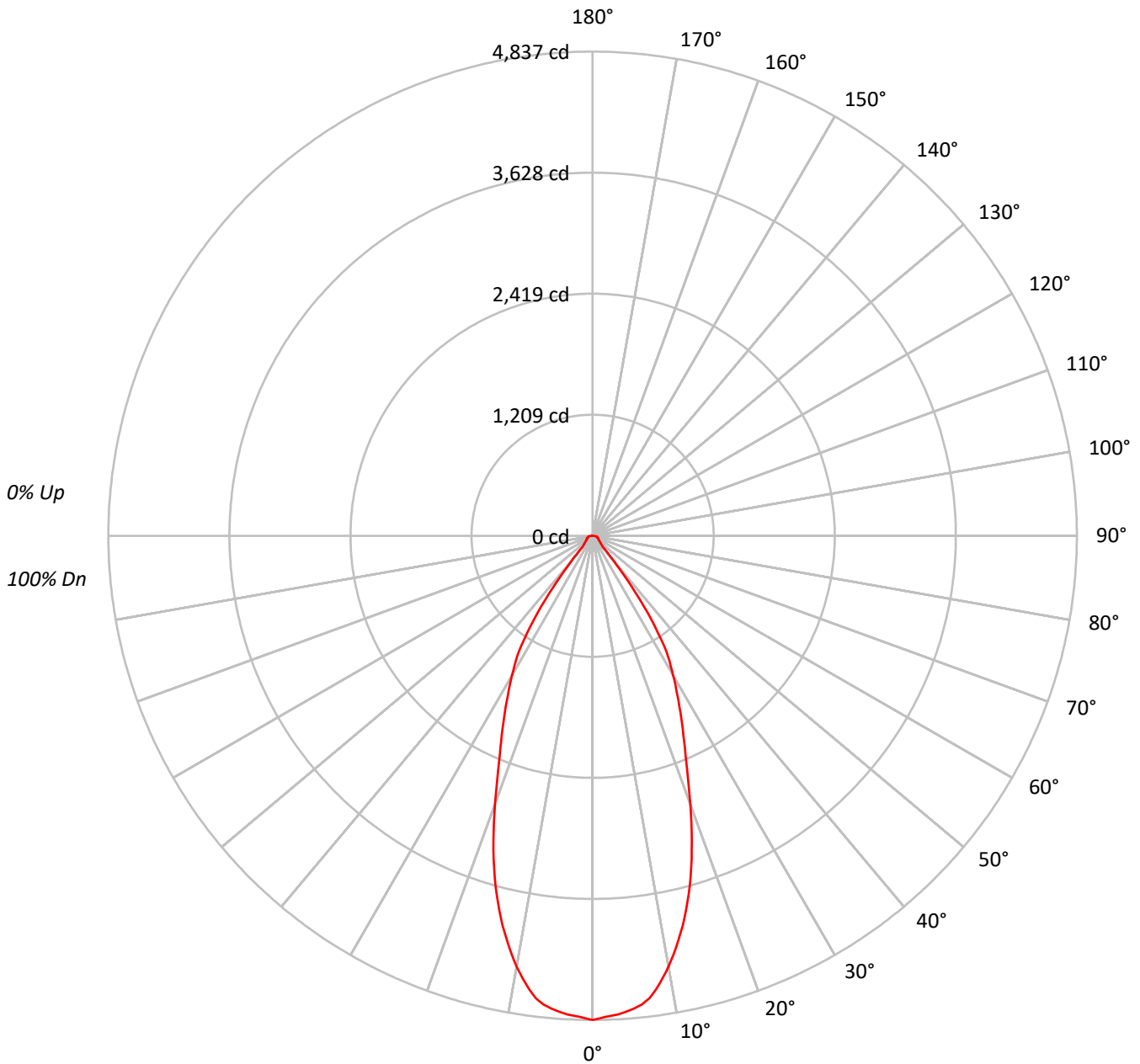
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86
3	102	95	90	86	100	94	89	86	91	88	84	89	86	83	87	84	82	80
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75
5	92	84	78	74	91	83	78	73	81	76	73	80	75	72	78	74	72	70
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	66
7	84	75	69	65	82	74	68	64	73	68	64	72	67	64	70	66	63	62
8	80	71	65	61	79	70	64	61	69	64	60	68	63	60	67	63	60	58
9	76	67	61	57	75	66	61	57	66	61	57	65	60	57	64	60	57	55
10	73	64	58	54	72	63	58	54	62	57	54	62	57	54	61	57	54	52

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	2386280
5°	2347948
10°	2188929
15°	1893426
20°	1496269
25°	1158232
30°	916770
35°	617303
40°	202686
45°	85753
50°	73609
55°	67008
60°	65027
65°	69929
70°	73426
75°	91310
80°	110809
85°	16983



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	441.4	13.2
10°-20°	1017.4	30.3
20°-30°	982.9	29.3
30°-40°	611.6	18.2
40°-50°	111.7	3.3
50°-60°	70.3	2.1
60°-70°	58.2	1.7
70°-80°	49.9	1.5
80°-90°	12.6	0.4
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°	2441.7	72.8
0°-40°	3053.3	91.0
0°-60°	3235.3	96.4
0°-90°	3356.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3356.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4837	
5°	4741	441
15°	3707	1017
25°	2128	983
35°	1025	612
45°	123	112
55°	78	70
65°	60	58
75°	48	50
85°	3	13
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	4836.6
1°	4818.7
2°	4800.7
3°	4788.7
4°	4767.7
5°	4740.8
6°	4707.8
7°	4656.8
8°	4572.9
9°	4474.0
10°	4369.2
11°	4252.3
12°	4126.4
13°	3997.6
14°	3856.7
15°	3706.9
16°	3548.1
17°	3380.3
18°	3206.5
19°	3029.6
20°	2849.8
21°	2679.0
22°	2517.2
23°	2373.4
24°	2247.5
25°	2127.6
26°	2016.8
27°	1908.9
28°	1804.0
29°	1705.1
30°	1609.2
32.5°	1375.5
35°	1024.9
37.5°	638.3
40°	314.7
42.5°	149.8
45°	122.9
47.5°	107.9
50°	95.9
52.5°	83.9
55°	77.9
57.5°	71.9
60°	65.9



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	53.9
70°	50.9
72.5°	50.9
75°	47.9
77.5°	45.0
80°	39.0
82.5°	24.0
85°	3.0
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		62.9
65°		59.9



(END OF REPORT)