

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: P434775

Luminaire Tested: **HCMR2R40930ED010MW**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434775  
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: HCMR2R40930ED010MW  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 40 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2224.2 lumens  
Efficiency: N/A  
Efficacy: 78.3 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

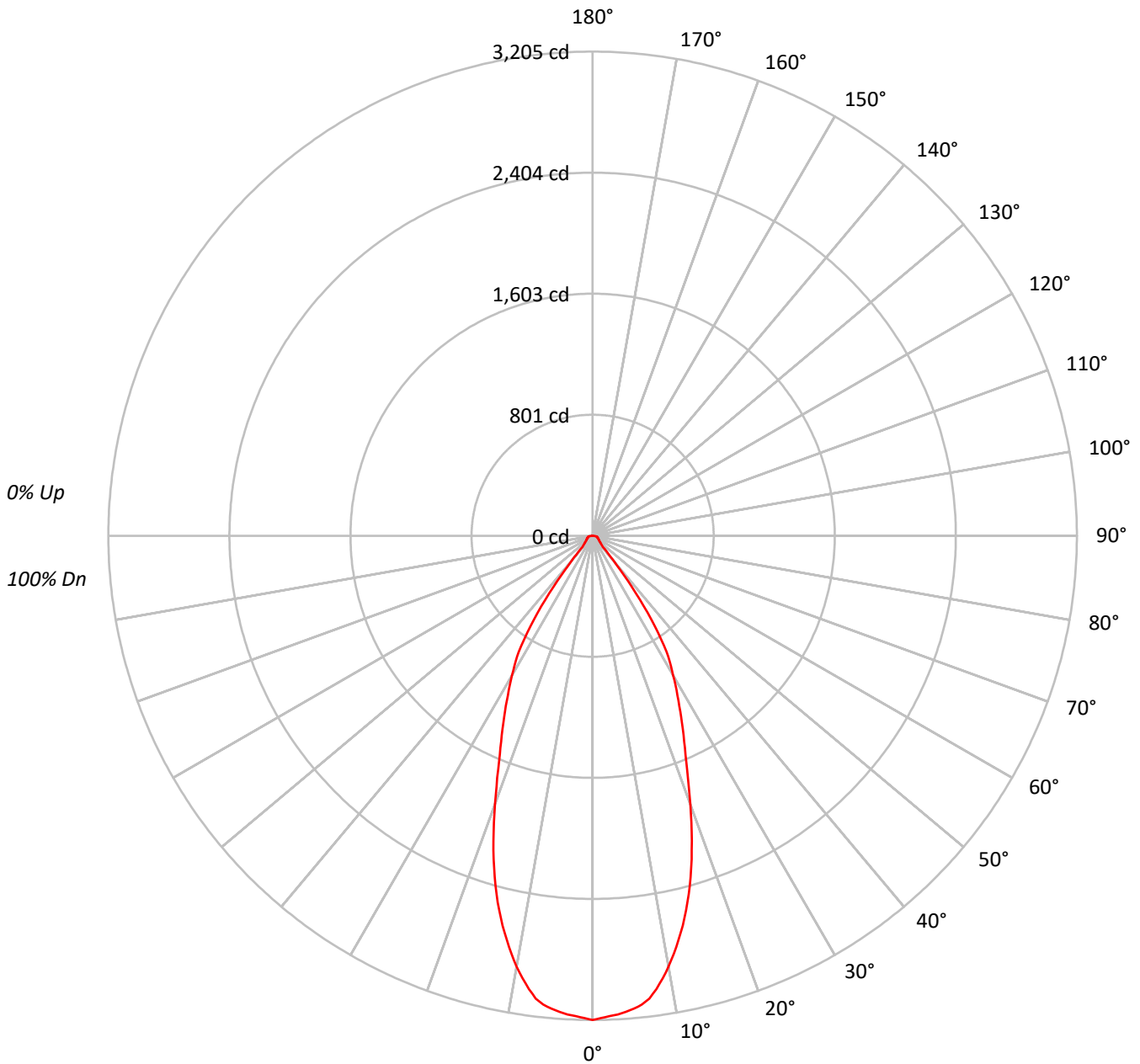
Input Watts (W): 28.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1581479
5°	1556071
10°	1450669
15°	1254843
20°	991650
25°	767636
30°	607591
35°	409086
40°	134287
45°	56796
50°	48817
55°	44385
60°	43121
65°	46347
70°	48758
75°	60619
80°	73304
85°	11322



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	292.6	13.2
10°-20°	674.3	30.3
20°-30°	651.4	29.3
30°-40°	405.3	18.2
40°-50°	74.0	3.3
50°-60°	46.6	2.1
60°-70°	38.6	1.7
70°-80°	33.1	1.5
80°-90°	8.4	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°	1618.2	72.8
0°-40°	2023.5	91.0
0°-60°	2144.2	96.4
0°-90°	2224.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2224.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3205	
5°	3142	293
15°	2457	674
25°	1410	651
35°	679	405
45°	81	74
55°	52	47
65°	40	39
75°	32	33
85°	2	8
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3205.4
1°	3193.5
2°	3181.6
3°	3173.6
4°	3159.7
5°	3141.9
6°	3120.0
7°	3086.3
8°	3030.6
9°	2965.1
10°	2895.6
11°	2818.1
12°	2734.7
13°	2649.3
14°	2556.0
15°	2456.7
16°	2351.4
17°	2240.2
18°	2125.0
19°	2007.9
20°	1888.7
21°	1775.5
22°	1668.2
23°	1572.9
24°	1489.5
25°	1410.1
26°	1336.6
27°	1265.1
28°	1195.6
29°	1130.0
30°	1066.5
32.5°	911.6
35°	679.2
37.5°	423.0
40°	208.5
42.5°	99.3
45°	81.4
47.5°	71.5
50°	63.6
52.5°	55.6
55°	51.6
57.5°	47.7
60°	43.7



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	35.7
70°	33.8
72.5°	33.8
75°	31.8
77.5°	29.8
80°	25.8
82.5°	15.9
85°	2.0
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		41.7
65°		39.7



(END OF REPORT)