

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: P434814

Luminaire Tested: **HCMR3R40935ED010MW**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434814  
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: HCMR3R40935ED010MW  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 40 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3759.6 lumens  
Efficiency: N/A  
Efficacy: 91.9 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

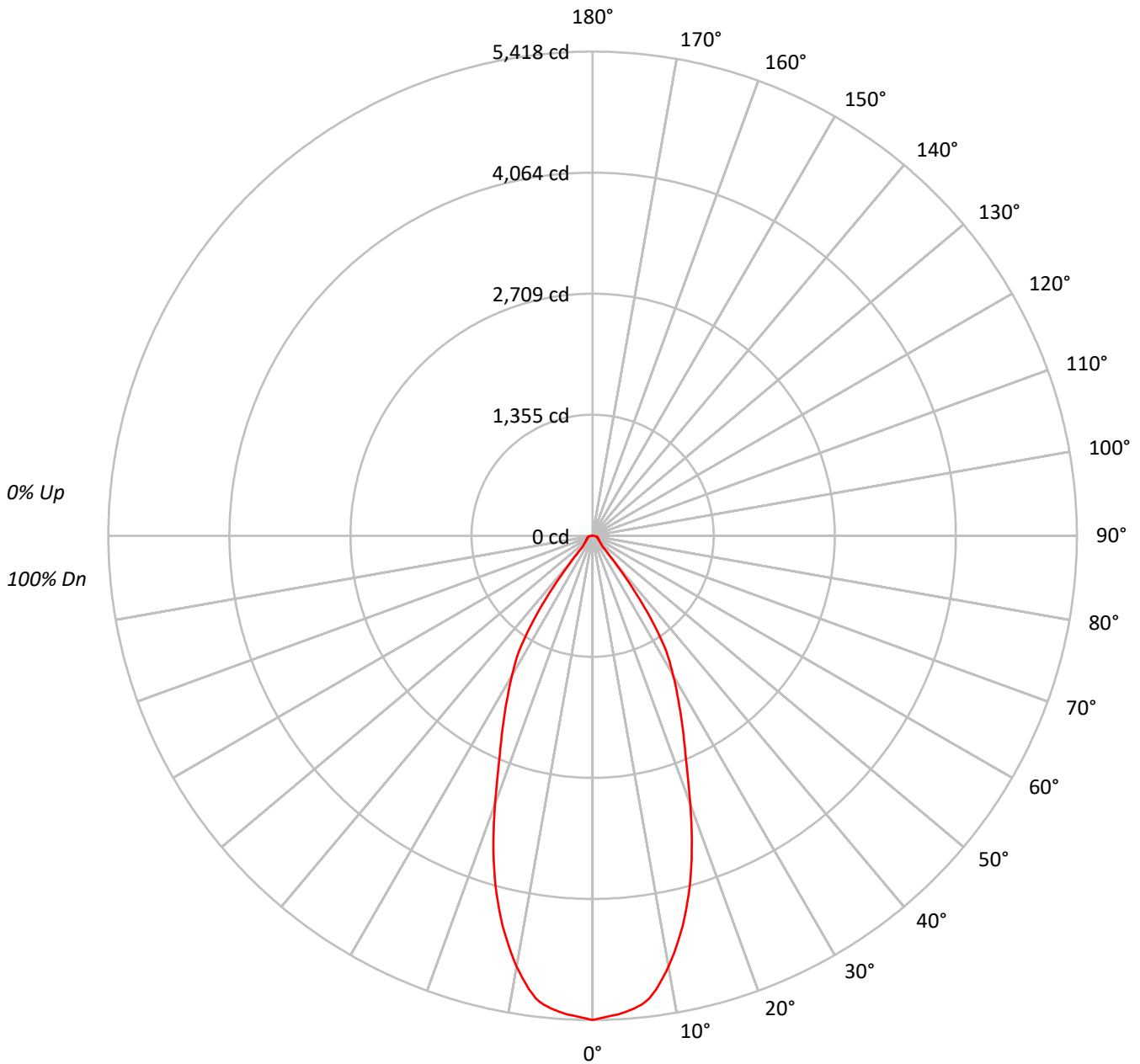
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2673180
5°	2630150
10°	2452049
15°	2121031
20°	1676149
25°	1297485
30°	1027008
35°	691507
40°	227032
45°	96010
50°	82436
55°	75094
60°	72921
65°	78335
70°	82369
75°	102367
80°	123879
85°	19247



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	494.5	13.2
10°-20°	1139.7	30.3
20°-30°	1101.0	29.3
30°-40°	685.1	18.2
40°-50°	125.1	3.3
50°-60°	78.8	2.1
60°-70°	65.3	1.7
70°-80°	55.9	1.5
80°-90°	14.1	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°	2735.3	72.8
0°-40°	3420.4	91.0
0°-60°	3624.2	96.4
0°-90°	3759.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3759.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	5418	
5°	5311	495
15°	4152	1140
25°	2383	1101
35°	1148	685
45°	138	125
55°	87	79
65°	67	65
75°	54	56
85°	3	14
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	5418.1
1°	5397.9
2°	5377.8
3°	5364.3
4°	5340.8
5°	5310.6
6°	5273.7
7°	5216.6
8°	5122.6
9°	5011.9
10°	4894.4
11°	4763.5
12°	4622.5
13°	4478.1
14°	4320.3
15°	4152.5
16°	3974.6
17°	3786.6
18°	3591.9
19°	3393.8
20°	3192.4
21°	3001.1
22°	2819.8
23°	2658.7
24°	2517.7
25°	2383.4
26°	2259.2
27°	2138.4
28°	2020.9
29°	1910.1
30°	1802.7
32.5°	1540.8
35°	1148.1
37.5°	715.0
40°	352.5
42.5°	167.8
45°	137.6
47.5°	120.8
50°	107.4
52.5°	94.0
55°	87.3
57.5°	80.6
60°	73.9



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	60.4
70°	57.1
72.5°	57.1
75°	53.7
77.5°	50.4
80°	43.6
82.5°	26.9
85°	3.4
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		70.5
65°		67.1



(END OF REPORT)