

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: P434596

Luminaire Tested: **HCM1R40935ED010MB**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434596  
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: HCM1R40935ED010MB  
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: 1254.6 lumens  
Efficiency: N/A  
Efficacy: 87.7 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

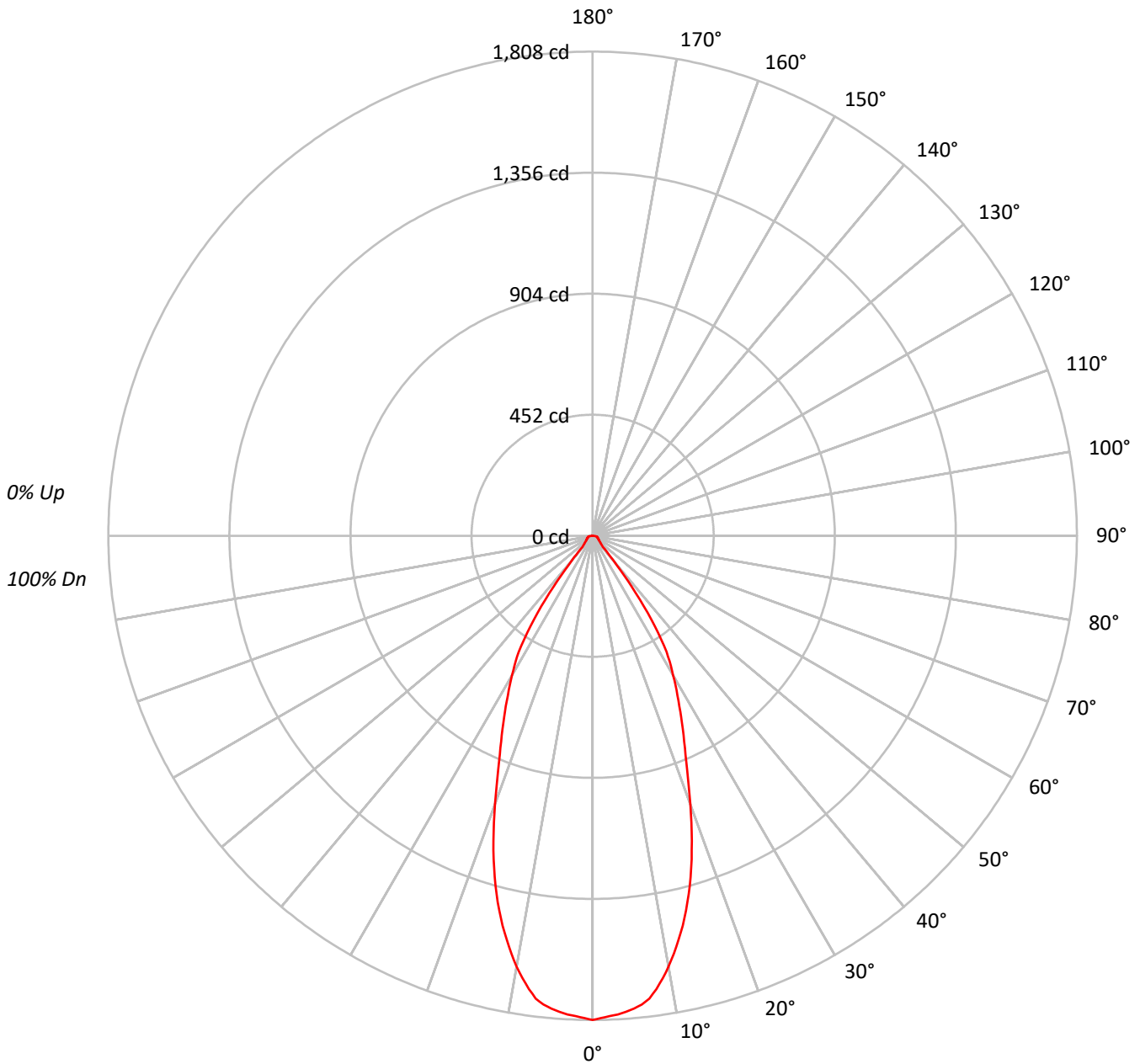
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	892080
5°	877757
10°	818318
15°	707845
20°	559381
25°	433003
30°	342735
35°	230743
40°	75742
45°	32026
50°	27479
55°	25031
60°	24274
65°	26151
70°	27408
75°	34122
80°	41482
85°	6227



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.0	13.2
10°-20°	380.4	30.3
20°-30°	367.4	29.3
30°-40°	228.6	18.2
40°-50°	41.7	3.3
50°-60°	26.3	2.1
60°-70°	21.8	1.7
70°-80°	18.6	1.5
80°-90°	4.7	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°	912.8	72.8
0°-40°	1141.4	91.0
0°-60°	1209.4	96.4
0°-90°	1254.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1254.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1808	
5°	1772	165
15°	1386	380
25°	795	367
35°	383	229
45°	46	42
55°	29	26
65°	22	22
75°	18	19
85°	1	5
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1808.1
1°	1801.4
2°	1794.7
3°	1790.2
4°	1782.4
5°	1772.3
6°	1759.9
7°	1740.9
8°	1709.5
9°	1672.6
10°	1633.4
11°	1589.7
12°	1542.6
13°	1494.4
14°	1441.8
15°	1385.8
16°	1326.4
17°	1263.7
18°	1198.7
19°	1132.6
20°	1065.4
21°	1001.5
22°	941.0
23°	887.3
24°	840.2
25°	795.4
26°	753.9
27°	713.6
28°	674.4
29°	637.4
30°	601.6
32.5°	514.2
35°	383.1
37.5°	238.6
40°	117.6
42.5°	56.0
45°	45.9
47.5°	40.3
50°	35.8
52.5°	31.4
55°	29.1
57.5°	26.9
60°	24.6



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	20.2
70°	19.0
72.5°	19.0
75°	17.9
77.5°	16.8
80°	14.6
82.5°	9.0
85°	1.1
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		23.5
65°		22.4



(END OF REPORT)