

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: P434695

Luminaire Tested: **HCM4R25940ED010MB**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434695  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-933-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/24/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HCM4R25940ED010MB  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 25 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5121.8 lumens  
Efficiency: N/A  
Efficacy: 94.7 lumens/watt  
Spacing Criteria (0/90/45): 0.39 / 0.39 / 0.39  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

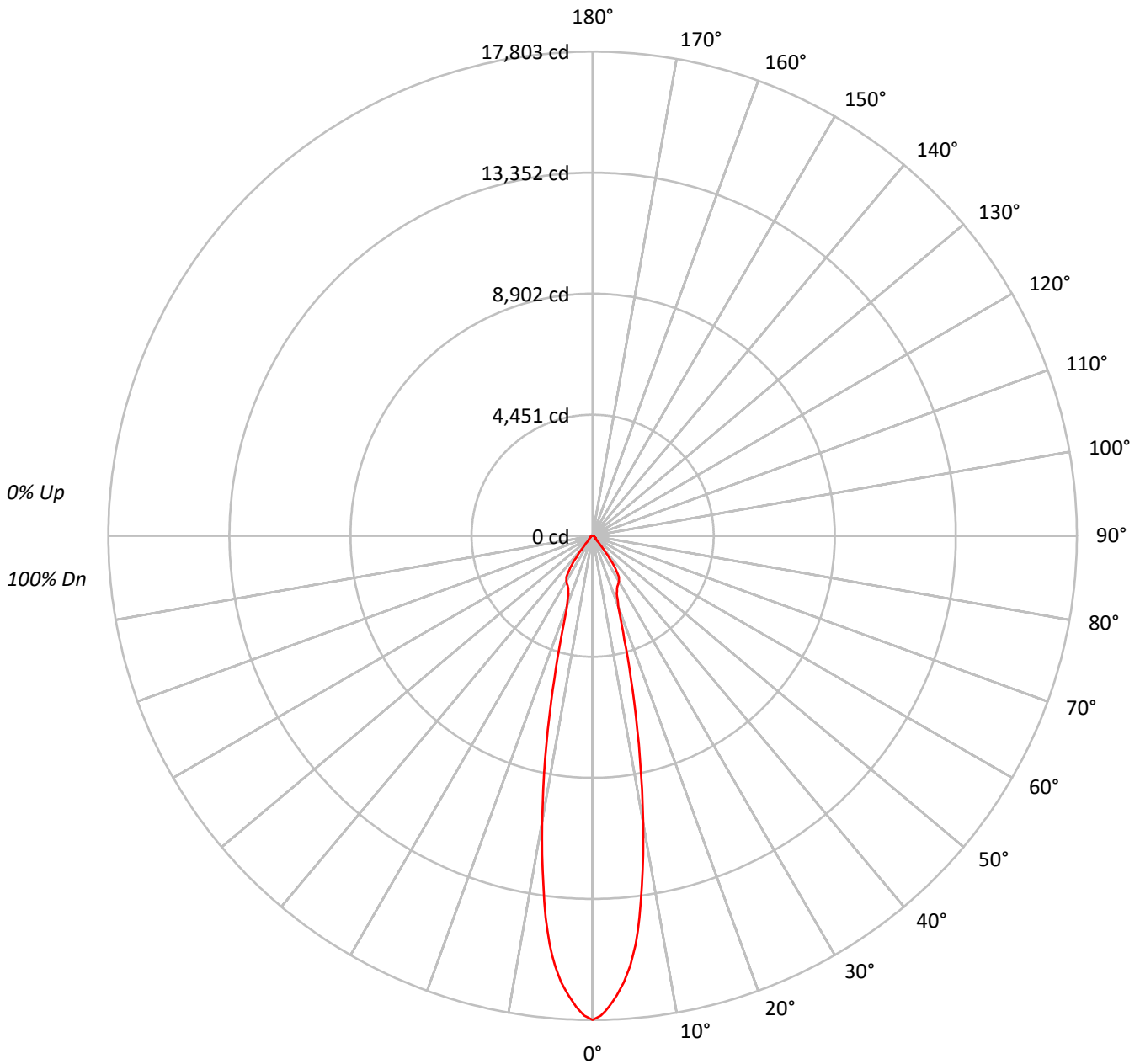
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	109	107	105	105	103	102	101	100	99	98	97	96	94			
2	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	88			
3	104	98	93	90	102	97	92	89	94	91	88	92	89	86	89	87	85	83			
4	100	93	88	84	98	92	87	83	89	85	82	88	84	81	86	83	80	79			
5	95	88	83	79	94	87	82	78	85	81	78	84	80	77	82	79	76	75			
6	92	84	78	75	90	83	78	74	81	77	74	80	76	73	79	75	73	72			
7	88	80	75	71	87	79	74	71	78	74	70	77	73	70	76	72	70	68			
8	85	76	71	68	84	76	71	67	75	70	67	74	70	67	73	69	67	65			
9	82	73	68	65	81	73	68	65	72	68	64	71	67	64	70	67	64	63			
10	79	70	65	62	78	70	65	62	69	65	62	69	65	62	68	64	62	60			

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

	0°
0°	8783587
5°	7861477
10°	5351884
15°	2766151
20°	1442977
25°	1158177
30°	1099304
35°	856117
40°	295495
45°	128664
50°	110452
55°	96684
60°	84368
65°	78802
70°	84389
75°	102939
80°	127857
85°	25474



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1344.3	26.2
10°-20°	1545.1	30.2
20°-30°	1009.0	19.7
30°-40°	816.6	15.9
40°-50°	165.6	3.2
50°-60°	99.9	1.9
60°-70°	69.1	1.3
70°-80°	57.7	1.1
80°-90°	14.7	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°	3898.3	76.1
0°-40°	4715.0	92.1
0°-60°	4980.4	97.2
0°-90°	5121.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5121.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	17803	
5°	15873	###
15°	5416	1545
25°	2128	1009
35°	1421	817
45°	184	166
55°	112	100
65°	68	69
75°	54	58
85°	4	15
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	17802.9
1°	17645.5
2°	17326.1
3°	16925.8
4°	16462.5
5°	15873.3
6°	15108.6
7°	14141.6
8°	13012.6
9°	11861.1
10°	10682.6
11°	9508.7
12°	8384.2
13°	7309.2
14°	6324.1
15°	5415.5
16°	4677.9
17°	3998.7
18°	3467.9
19°	3054.1
20°	2748.3
22.5°	2320.9
25°	2127.5
26°	2078.1
27°	2042.1
28°	2006.1
29°	1965.6
30°	1929.6
32.5°	1794.7
35°	1421.4
37.5°	913.1
40°	458.8
42.5°	220.4
45°	184.4
47.5°	161.9
50°	143.9
52.5°	125.9
55°	112.4
57.5°	94.5
60°	85.5
62.5°	76.5
65°	67.5
67.5°	63.0



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	54.0
77.5°	54.0
80°	45.0
82.5°	27.0
85°	4.5
87.5°	0.0
90°	0.0



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— 0°-180°







70°	58.5
72.5°	58.5



(END OF REPORT)