

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: P434805

Luminaire Tested: **HCMR3R25940ED010MW**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434805  
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: HCMR3R25940ED010MW  
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: 3936.3 lumens  
Efficiency: N/A  
Efficacy: 96.2 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

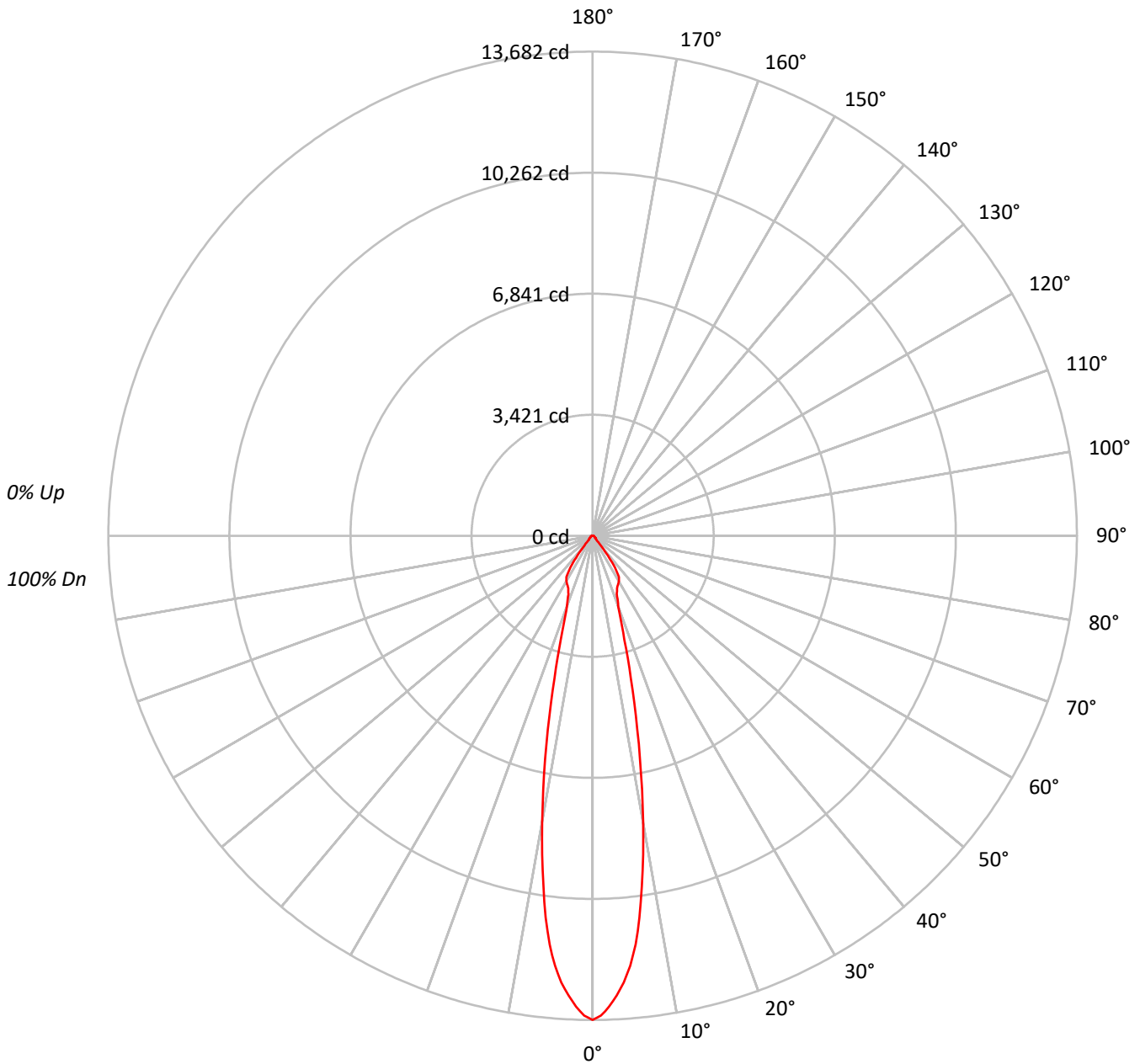
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	76	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°	6750567
5°	6041876
10°	4113184
15°	2125934
20°	1108997
25°	890122
30°	844873
35°	657958
40°	227096
45°	98870
50°	84892
55°	74320
60°	64830
65°	60590
70°	64770
75°	79110
80°	98308
85°	19813



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1033.1	26.2
10°-20°	1187.4	30.2
20°-30°	775.5	19.7
30°-40°	627.6	15.9
40°-50°	127.2	3.2
50°-60°	76.7	1.9
60°-70°	53.1	1.3
70°-80°	44.3	1.1
80°-90°	11.3	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°	2996.1	76.1
0°-40°	3623.7	92.1
0°-60°	3827.6	97.2
0°-90°	3936.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3936.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	13682	
5°	12199	###
15°	4162	1187
25°	1635	775
35°	1092	628
45°	142	127
55°	86	77
65°	52	53
75°	42	44
85°	4	11
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	13682.3
1°	13561.3
2°	13315.9
3°	13008.2
4°	12652.2
5°	12199.3
6°	11611.6
7°	10868.4
8°	10000.7
9°	9115.8
10°	8210.1
11°	7307.8
12°	6443.6
13°	5617.4
14°	4860.4
15°	4162.1
16°	3595.2
17°	3073.2
18°	2665.3
19°	2347.2
20°	2112.2
22.5°	1783.7
25°	1635.1
26°	1597.1
27°	1569.4
28°	1541.8
29°	1510.7
30°	1483.0
32.5°	1379.3
35°	1092.4
37.5°	701.7
40°	352.6
42.5°	169.4
45°	141.7
47.5°	124.4
50°	110.6
52.5°	96.8
55°	86.4
57.5°	72.6
60°	65.7
62.5°	58.8
65°	51.9
67.5°	48.4



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	41.5
77.5°	41.5
80°	34.6
82.5°	20.7
85°	3.5
87.5°	0.0
90°	0.0



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— 0°-180°







70°		44.9
72.5°		44.9



(END OF REPORT)