

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: P434635

Luminaire Tested: **HCM2R40940ED010MB**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434635  
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: HCM2R40940ED010MB  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 40 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2408.0 lumens  
Efficiency: N/A  
Efficacy: 84.8 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

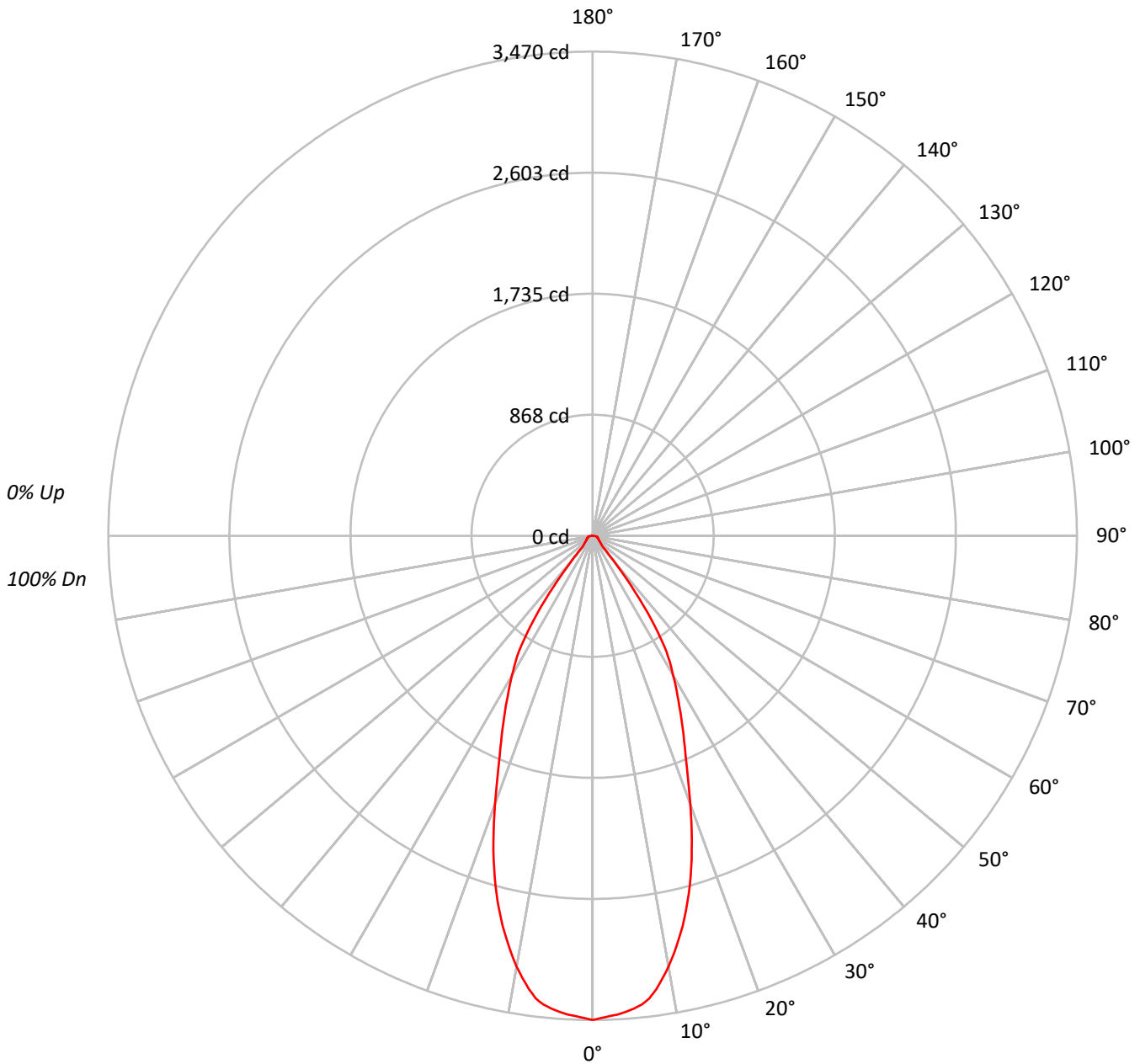
Input Watts (W): 28.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P434635

CATALOG NUMBER: HCM2R40940ED010MB

### Luminous Intensity Polar Plot





TEST NUMBER: P434635

CATALOG NUMBER: HCM2R40940ED010MB

**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°	1712076
5°	1684542
10°	1570456
15°	1358481
20°	1073557
25°	831002
30°	657782
35°	442875
40°	145429
45°	61541
50°	52808
55°	48084
60°	46674
65°	50200
70°	52797
75°	65576
80°	79555
85°	12454



TEST NUMBER: P434635

CATALOG NUMBER: HCM2R40940ED010MB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	316.7	13.2
10°-20°	730.0	30.3
20°-30°	705.2	29.3
30°-40°	438.8	18.2
40°-50°	80.1	3.3
50°-60°	50.5	2.1
60°-70°	41.8	1.7
70°-80°	35.8	1.5
80°-90°	9.1	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°	1751.9	72.8
0°-40°	2190.7	91.0
0°-60°	2321.3	96.4
0°-90°	2408.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2408.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3470	
5°	3401	317
15°	2660	730
25°	1526	705
35°	735	439
45°	88	80
55°	56	50
65°	43	42
75°	34	36
85°	2	9
90°	0	



TEST NUMBER: P434635

CATALOG NUMBER: HCM2R40940ED010MB

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3470.1
1°	3457.2
2°	3444.3
3°	3435.7
4°	3420.7
5°	3401.3
6°	3377.7
7°	3341.1
8°	3280.9
9°	3210.0
10°	3134.7
11°	3050.9
12°	2960.6
13°	2868.1
14°	2767.1
15°	2659.6
16°	2545.6
17°	2425.2
18°	2300.5
19°	2173.7
20°	2044.7
21°	1922.1
22°	1806.0
23°	1702.8
24°	1612.5
25°	1526.5
26°	1447.0
27°	1369.6
28°	1294.3
29°	1223.4
30°	1154.6
32.5°	986.9
35°	735.3
37.5°	458.0
40°	225.8
42.5°	107.5
45°	88.2
47.5°	77.4
50°	68.8
52.5°	60.2
55°	55.9
57.5°	51.6
60°	47.3



TEST NUMBER: P434635

CATALOG NUMBER: HCM2R40940ED010MB

**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	38.7
70°	36.6
72.5°	36.6
75°	34.4
77.5°	32.3
80°	28.0
82.5°	17.2
85°	2.2
87.5°	0.0
90°	0.0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







62.5°		45.2
65°		43.0



(END OF REPORT)