

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: P434600

Luminaire Tested: **HCM1R40940ED010MMS**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434600  
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: HCM1R40940ED010MMS  
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: 1291.8 lumens  
Efficiency: N/A  
Efficacy: 90.3 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

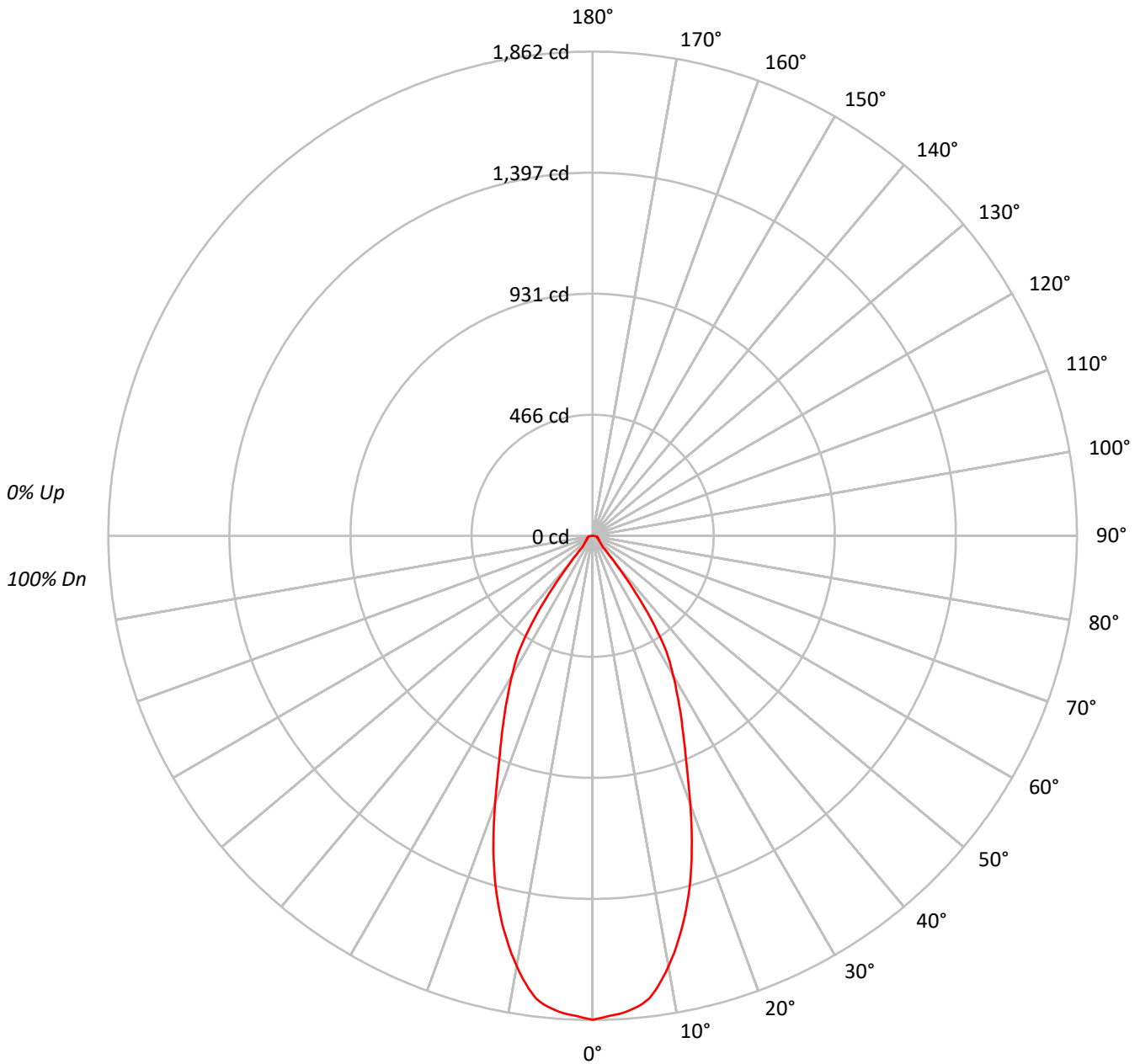
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P434600

CATALOG NUMBER: HCM1R40940ED010MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P434600

CATALOG NUMBER: HCM1R40940ED010MMS

**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°	918426
5°	903659
10°	842466
15°	728736
20°	575920
25°	445796
30°	352876
35°	237609
40°	77996
45°	33003
50°	28323
55°	25805
60°	25064
65°	26968
70°	28274
75°	35266
80°	42619
85°	6793



TEST NUMBER: P434600

CATALOG NUMBER: HCM1R40940ED010MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	169.9	13.2
10°-20°	391.6	30.3
20°-30°	378.3	29.3
30°-40°	235.4	18.2
40°-50°	43.0	3.3
50°-60°	27.1	2.1
60°-70°	22.4	1.7
70°-80°	19.2	1.5
80°-90°	4.9	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°	939.8	72.8
0°-40°	1175.2	91.0
0°-60°	1245.3	96.4
0°-90°	1291.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1291.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1862	
5°	1825	170
15°	1427	392
25°	819	378
35°	394	235
45°	47	43
55°	30	27
65°	23	22
75°	18	19
85°	1	5
90°	0	



TEST NUMBER: P434600

CATALOG NUMBER: HCM1R40940ED010MMS

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1861.5
1°	1854.6
2°	1847.7
3°	1843.1
4°	1835.0
5°	1824.6
6°	1812.0
7°	1792.3
8°	1760.0
9°	1722.0
10°	1681.6
11°	1636.6
12°	1588.2
13°	1538.6
14°	1484.4
15°	1426.7
16°	1365.6
17°	1301.0
18°	1234.1
19°	1166.1
20°	1096.9
21°	1031.1
22°	968.8
23°	913.5
24°	865.0
25°	818.9
26°	776.2
27°	734.7
28°	694.3
29°	656.3
30°	619.4
32.5°	529.4
35°	394.5
37.5°	245.7
40°	121.1
42.5°	57.7
45°	47.3
47.5°	41.5
50°	36.9
52.5°	32.3
55°	30.0
57.5°	27.7
60°	25.4



TEST NUMBER: P434600

CATALOG NUMBER: HCM1R40940ED010MMS

**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	20.8
70°	19.6
72.5°	19.6
75°	18.5
77.5°	17.3
80°	15.0
82.5°	9.2
85°	1.2
87.5°	0.0
90°	0.0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







62.5°		24.2
65°		23.1



(END OF REPORT)