

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: P434595

Luminaire Tested: **HCM1R40930ED010MW**

Issue Date: 11/24/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P434595  
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: HCM1R40930ED010MW  
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 40 DEG REFLECTOR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1193.2 lumens  
Efficiency: N/A  
Efficacy: 83.4 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

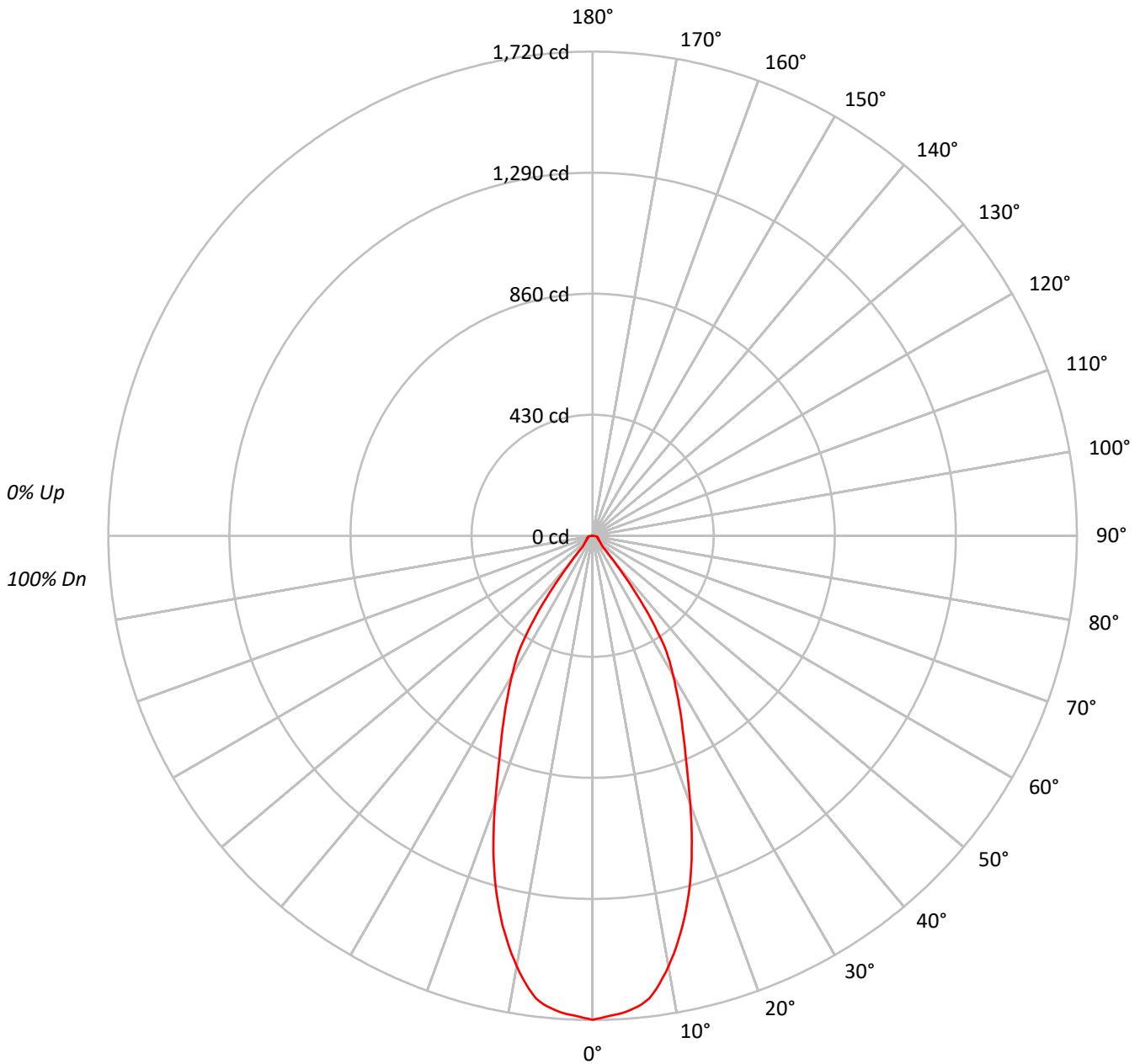
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P434595

CATALOG NUMBER: HCM1R40930ED010MW

### 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
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°	848366
5°	834718
10°	778189
15°	673162
20°	531974
25°	411772
30°	325929
35°	219480
40°	72070
45°	30491
50°	26174
55°	23827
60°	23090
65°	24866
70°	26110
75°	32407
80°	39494
85°	6227



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.9	13.2
10°-20°	361.7	30.3
20°-30°	349.4	29.3
30°-40°	217.4	18.2
40°-50°	39.7	3.3
50°-60°	25.0	2.1
60°-70°	20.7	1.7
70°-80°	17.7	1.5
80°-90°	4.5	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°	868.1	72.8
0°-40°	1085.5	91.0
0°-60°	1150.3	96.4
0°-90°	1193.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1193.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1720	
5°	1685	157
15°	1318	362
25°	756	349
35°	364	217
45°	44	40
55°	28	25
65°	21	21
75°	17	18
85°	1	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1719.5
1°	1713.1
2°	1706.8
3°	1702.5
4°	1695.0
5°	1685.4
6°	1673.7
7°	1655.6
8°	1625.8
9°	1590.6
10°	1553.3
11°	1511.8
12°	1467.0
13°	1421.2
14°	1371.2
15°	1317.9
16°	1261.4
17°	1201.8
18°	1140.0
19°	1077.1
20°	1013.2
21°	952.5
22°	894.9
23°	843.8
24°	799.0
25°	756.4
26°	717.0
27°	678.7
28°	641.4
29°	606.2
30°	572.1
32.5°	489.0
35°	364.4
37.5°	226.9
40°	111.9
42.5°	53.3
45°	43.7
47.5°	38.4
50°	34.1
52.5°	29.8
55°	27.7
57.5°	25.6
60°	23.4



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**CANDELA DISTRIBUTION (continued):**

	0°
67.5°	19.2
70°	18.1
72.5°	18.1
75°	17.0
77.5°	16.0
80°	13.9
82.5°	8.5
85°	1.1
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		22.4
65°		21.3



(END OF REPORT)