

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: P434705

Luminaire Tested: **HCM4R40935ED010MMS**

Issue Date: 11/24/2020

Test Information

Test Method: LM-41-14
Report Number: P434705
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: HCM4R40935ED010MMS
Description: HALO COMMERCIAL 4INCH ADJUSTABLE MULTIPLE, 40 DEG REFLECTOR OPTIC
Light Source: HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4891.8 lumens
Efficiency: N/A
Efficacy: 90.4 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

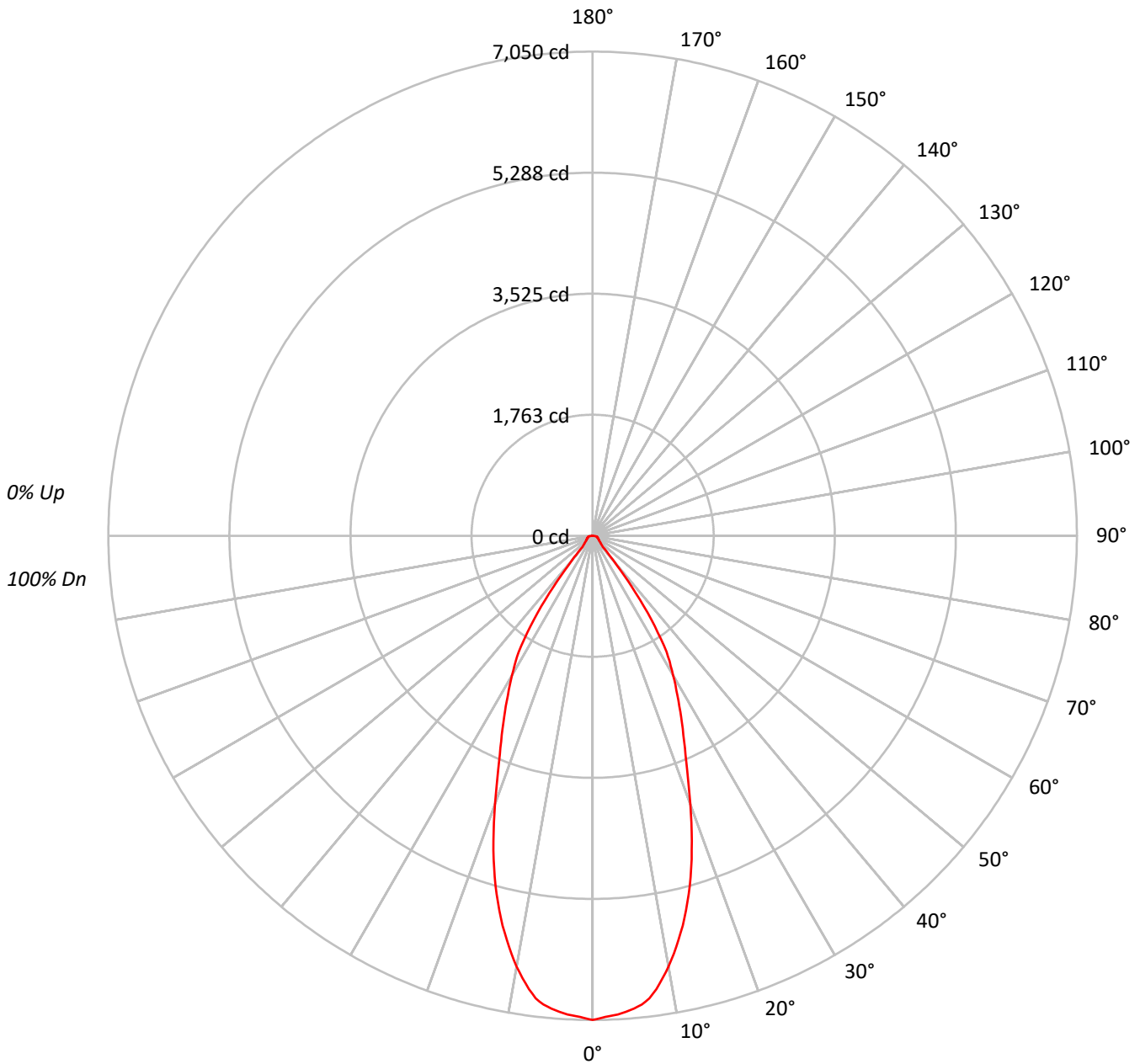
Input Watts (W): 54.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100	100
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	93	93
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86	86	86	86
3	102	95	90	86	100	94	89	86	91	88	84	89	86	83	87	84	82	80	80	80	80
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75	75	75	75
5	92	84	78	74	91	83	78	73	81	76	73	80	75	72	78	74	72	70	70	70	70
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	66	66	66	66
7	84	75	69	65	82	74	68	64	73	68	64	72	67	64	70	66	63	62	62	62	62
8	80	71	65	61	79	70	64	61	69	64	60	68	63	60	67	63	60	58	58	58	58
9	76	67	61	57	75	66	61	57	66	61	57	65	60	57	64	60	57	55	55	55	55
10	73	64	58	54	72	63	58	54	62	57	54	62	57	54	61	57	54	52	52	52	52

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	3478227
5°	3422275
10°	3190509
15°	2759818
20°	2180978
25°	1688244
30°	1336302
35°	899724
40°	295366
45°	124966
50°	107305
55°	97717
60°	94828
65°	102034
70°	107181
75°	133248
80°	161384
85°	24908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	643.4	13.2
10°-20°	1483.0	30.3
20°-30°	1432.6	29.3
30°-40°	891.4	18.2
40°-50°	162.8	3.3
50°-60°	102.5	2.1
60°-70°	84.9	1.7
70°-80°	72.7	1.5
80°-90°	18.4	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°	3559.0	72.8
0°-40°	4450.5	91.0
0°-60°	4715.7	96.4
0°-90°	4891.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4891.8	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	7050	
5°	6910	643
15°	5403	1483
25°	3101	1433
35°	1494	891
45°	179	163
55°	114	103
65°	87	85
75°	70	73
85°	4	18
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	7049.8
1°	7023.6
2°	6997.4
3°	6979.9
4°	6949.3
5°	6910.0
6°	6862.0
7°	6787.7
8°	6665.4
9°	6521.3
10°	6368.4
11°	6198.0
12°	6014.6
13°	5826.8
14°	5621.5
15°	5403.1
16°	5171.6
17°	4927.0
18°	4673.6
19°	4415.9
20°	4153.9
21°	3904.9
22°	3669.0
23°	3459.4
24°	3275.9
25°	3101.2
26°	2939.6
27°	2782.3
28°	2629.5
29°	2485.3
30°	2345.6
32.5°	2004.9
35°	1493.8
37.5°	930.4
40°	458.6
42.5°	218.4
45°	179.1
47.5°	157.2
50°	139.8
52.5°	122.3
55°	113.6
57.5°	104.8
60°	96.1



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CANDELA DISTRIBUTION (continued):

	0°
67.5°	78.6
70°	74.3
72.5°	74.3
75°	69.9
77.5°	65.5
80°	56.8
82.5°	34.9
85°	4.4
87.5°	0.0
90°	0.0



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— 0°-180°







62.5°		91.7
65°		87.4



(END OF REPORT)