

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

Report Number: P300486

Luminaire Tested: **ML4D09_27D2WE - TIR45SP15 - TL41RORB - TL42SORB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P300486
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1902-156-66)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09_27D2WE - TIR45SP15 - TL41RORB - TL42SORB
Description: ML4 2700K, 900LM DIM-TO-WARM, 15 DEG SP OPTIC, WITH ROUND/SQUARE PINHOLE OIL RUBBED BRONZE FLANGE
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 488.0 lumens
Efficiency: N/A
Efficacy: 43.6 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.32 / 0.32
Luminous Opening: Circular (Dia: 0.19' x H: 0')
CIE Type: Direct

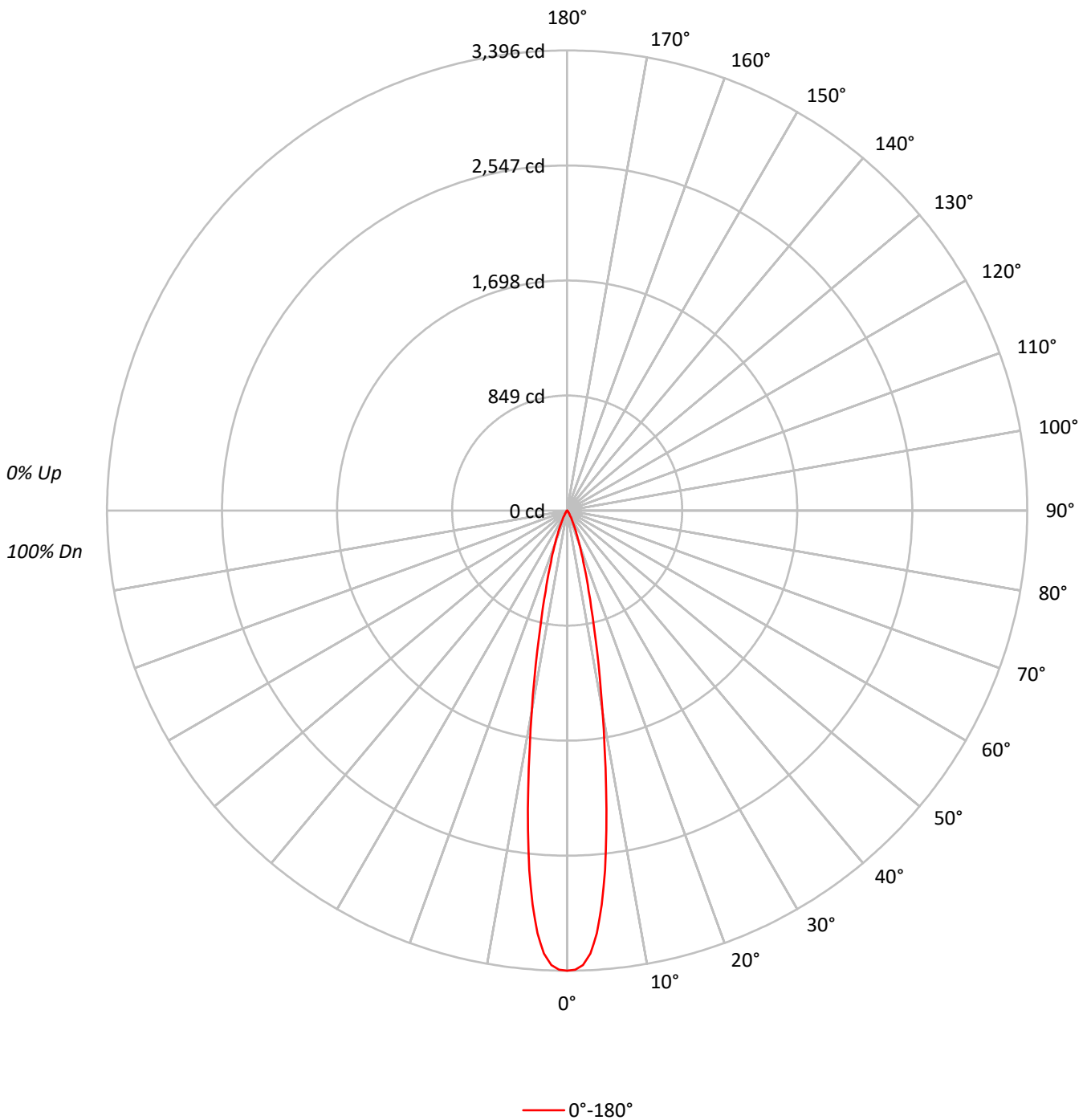
Input Watts (W): 11.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	115	113	112	110	113	111	110	108	107	106	105	104	103	102	100	100	99	97
2	112	109	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	95
3	109	104	101	98	107	103	100	98	101	98	96	98	96	95	96	95	93	92
4	106	101	97	94	104	100	96	94	98	95	93	96	94	92	94	92	91	90
5	103	98	94	91	102	97	93	91	95	92	90	94	91	89	92	90	89	88
6	101	95	91	88	99	94	91	88	93	90	88	92	89	87	91	88	86	85
7	98	92	89	86	97	92	88	86	91	88	85	90	87	85	89	86	84	84
8	96	90	86	84	95	89	86	84	89	85	83	88	85	83	87	84	83	82
9	94	88	84	82	93	87	84	82	87	84	81	86	83	81	85	83	81	80
10	92	86	82	80	91	85	82	80	85	82	80	84	81	79	84	81	79	78

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	1323754
5°	1142345
10°	594798
15°	248083
20°	106741
25°	47358
30°	20256
35°	9994
40°	5598
45°	2757
50°	1213
55°	680
60°	780
65°	922
70°	0
75°	0
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.4	47.0
10°-20°	183.0	37.5
20°-30°	55.1	11.3
30°-40°	14.5	3.0
40°-50°	4.1	0.8
50°-60°	1.2	0.3
60°-70°	0.6	0.1
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	467.5	95.8
0°-40°	482.1	98.8
0°-60°	487.4	99.9
0°-90°	488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	488.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	3396	
5°	2919	229
15°	615	183
25°	110	55
35°	21	15
45°	5	4
55°	1	1
65°	1	1
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	3395.7
1°	3388.7
2°	3355.7
3°	3273.6
4°	3127.4
5°	2919.2
6°	2669.9
7°	2375.6
8°	2069.3
9°	1768.9
10°	1502.6
11°	1264.4
12°	1060.2
13°	883.0
14°	736.8
15°	614.7
17.5°	396.4
20°	257.3
22.5°	169.2
25°	110.1
27.5°	70.1
30°	45.0
32.5°	30.0
35°	21.0
37.5°	16.0
40°	11.0
42.5°	7.0
45°	5.0
47.5°	3.0
50°	2.0
52.5°	2.0
55°	1.0
57.5°	1.0
60°	1.0
62.5°	1.0
65°	1.0
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0



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CANDELA DISTRIBUTION (continued):

90° | $\frac{0^\circ}{0.0}$

(END OF REPORT)