

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: P300487

Luminaire Tested: **ML4D09_27D2WE - TIR45SP15 - TL41RGB - TL42SGB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P300487
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1902-156-67)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09_27D2WE - TIR45SP15 - TL41RGB - TL42SGB
Description: ML4 2700K, 900LM DIM-TO-WARM, 15 DEG SP OPTIC, WITH ROUND/SQUARE PINHOLE GERMAN 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

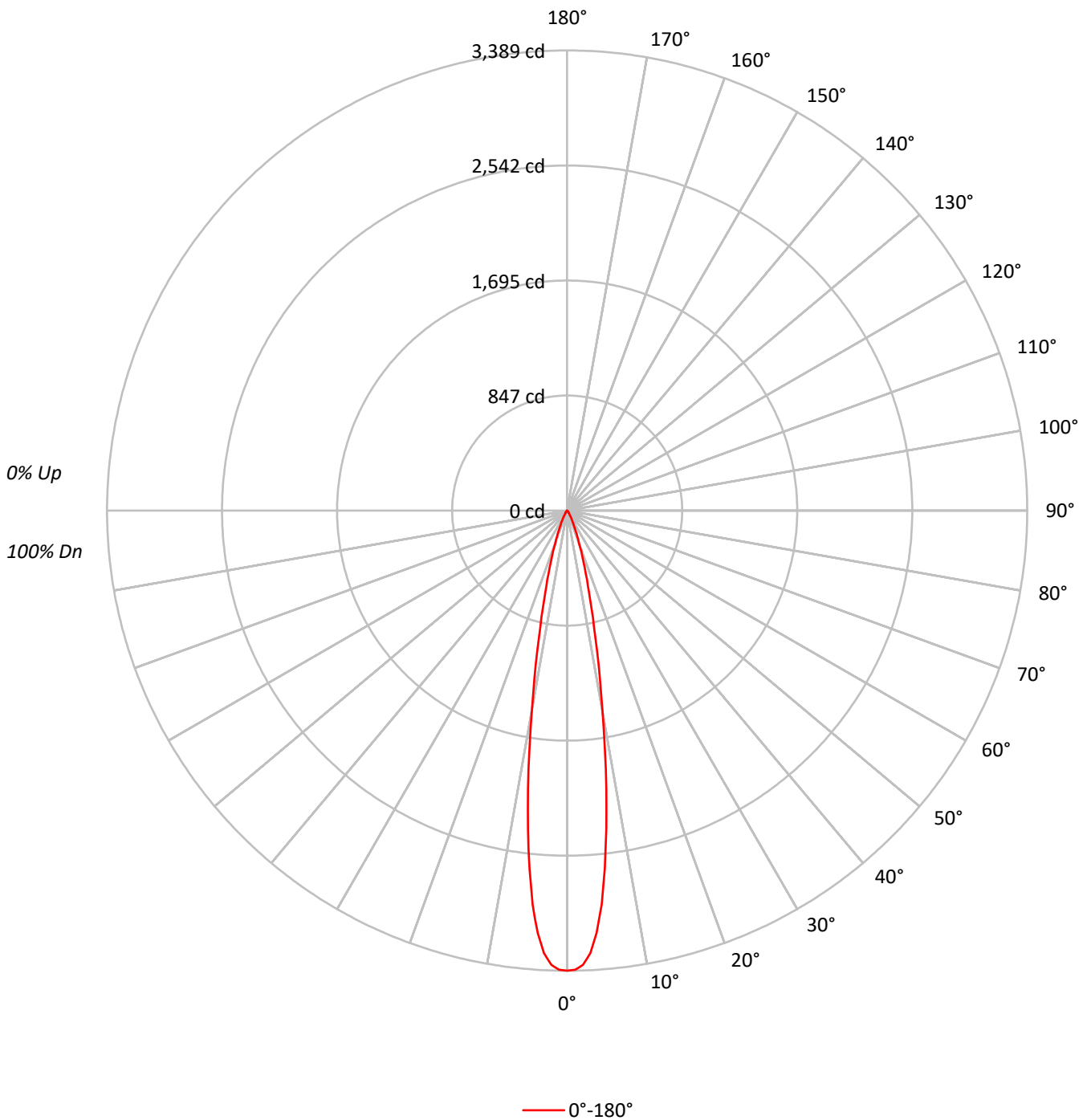
Input Watts (W): 11.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	87
6	100	95	91	88	99	94	91	88	93	90	87		92	89	87		91	88	86	85
7	98	92	88	86	97	92	88	86	91	87	85		90	87	85		89	86	84	83
8	96	90	86	84	95	89	86	83	89	85	83		88	85	83		87	84	83	82
9	94	88	84	82	93	87	84	81	87	83	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°	1321025
5°	1139411
10°	592898
15°	248971
20°	107446
25°	47745
30°	20256
35°	10470
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°	228.8	46.9
10°-20°	183.1	37.5
20°-30°	55.5	11.4
30°-40°	14.7	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°	467.4	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°	3389	
5°	2912	229
15°	617	183
25°	111	56
35°	22	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°	3388.7
1°	3382.7
2°	3346.7
3°	3263.7
4°	3117.7
5°	2911.7
6°	2651.7
7°	2361.8
8°	2070.8
9°	1770.8
10°	1497.8
11°	1260.9
12°	1057.9
13°	881.9
14°	739.9
15°	616.9
17.5°	397.0
20°	259.0
22.5°	170.0
25°	111.0
27.5°	71.0
30°	45.0
32.5°	30.0
35°	22.0
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)