

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: P392724

Luminaire Tested: **ML4D09_927 - TIR45SP15 - TL41RMW - TL42SMW**

Issue Date: 3/19/2020

Test Information

Test Method: LM-41-14
Report Number: P392724
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1809-960-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/19/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09_927 - TIR45SP15 - TL41RMW - TL42SMW
Description: ML4 900LM, 15° SP OPTIC, WITH ROUND PINHOLE MATTE WHITE FLANGE
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1053.5 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Spacing Criteria (0/90/45): 0.29 / 0.29 / 0.28
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

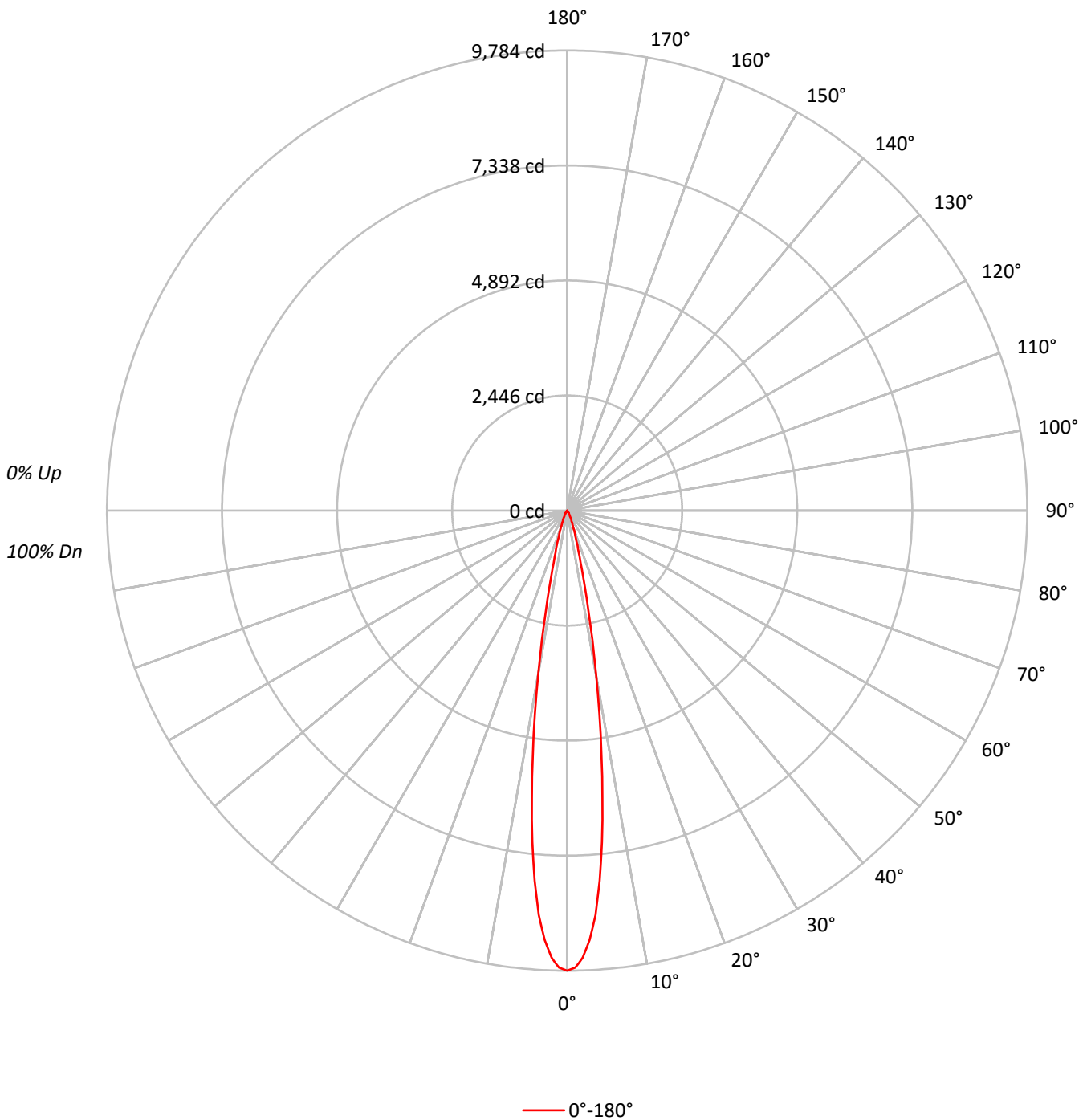
Input Watts (W): 11.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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			
1	116	114	112	111	113	112	110	109	108	107	106	104	103	102	101	100	100	98					98			
2	113	109	107	105	111	108	106	104	105	103	101	102	101	99	99	98	97	96					96			
3	110	106	103	100	108	105	102	100	102	100	98	100	98	97	98	96	95	94					94			
4	107	103	99	97	106	102	99	96	100	97	95	98	96	94	96	95	93	92					92			
5	105	100	97	94	104	99	96	94	98	95	93	96	94	92	95	93	91	90					90			
6	103	98	94	92	102	97	94	91	96	93	91	95	92	90	93	91	90	89					89			
7	101	95	92	90	100	95	92	89	94	91	89	93	90	89	92	90	88	87					87			
8	99	93	90	88	98	93	90	88	92	89	87	91	89	87	91	88	87	86					86			
9	97	92	88	86	96	91	88	86	91	88	86	90	87	86	89	87	85	85					85			
10	95	90	87	85	95	90	87	85	89	86	84	88	86	84	88	86	84	83					83			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	4826979
5°	3914221
10°	1768597
15°	518395
20°	201512
25°	92600
30°	37715
35°	19334
40°	9661
45°	2861
50°	1535
55°	602
60°	0
65°	0
70°	0
75°	0
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	604.0	57.3
10°-20°	339.2	32.2
20°-30°	83.6	7.9
30°-40°	21.5	2.0
40°-50°	4.3	0.4
50°-60°	0.8	0.1
60°-70°	0.0	0.0
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°	1026.9	97.5
0°-40°	1048.4	99.5
0°-60°	1053.5	100.0
0°-90°	1053.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1053.5	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	9784	
5°	7903	604
15°	1015	339
25°	170	84
35°	32	22
45°	4	4
55°	1	1
65°	0	0
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	9783.5
1°	9719.3
2°	9511.7
3°	9138.8
4°	8621.1
5°	7903.3
6°	7087.1
7°	6150.8
8°	5250.0
9°	4366.9
10°	3530.2
11°	2807.0
12°	2169.1
13°	1681.5
14°	1291.5
15°	1014.9
17.5°	609.9
20°	383.8
22.5°	253.4
25°	170.1
27.5°	110.0
30°	66.2
32.5°	45.8
35°	32.1
37.5°	22.5
40°	15.0
42.5°	7.5
45°	4.1
47.5°	2.7
50°	2.0
52.5°	1.4
55°	0.7
57.5°	0.7
60°	0.0
62.5°	0.0
65°	0.0
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)