

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: P277709

Luminaire Tested: **ML4D09\_D2WE - TIR45WFL55 - TL41RMW - TL42SMW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P277709  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-893-14)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML4D09\_D2WE - TIR45WFL55 - TL41RMW - TL42SMW  
Description: ML4 900LM 3000K, D2W, 55° WFL OPTIC, WITH ROUND PINHOLE MATTE WHITE FLANGE  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 584.5 lumens  
Efficiency: N/A  
Efficacy: 48.7 lumens/watt  
Spacing Criteria (0/90/45): 0.67 / 0.67 / 0.74  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

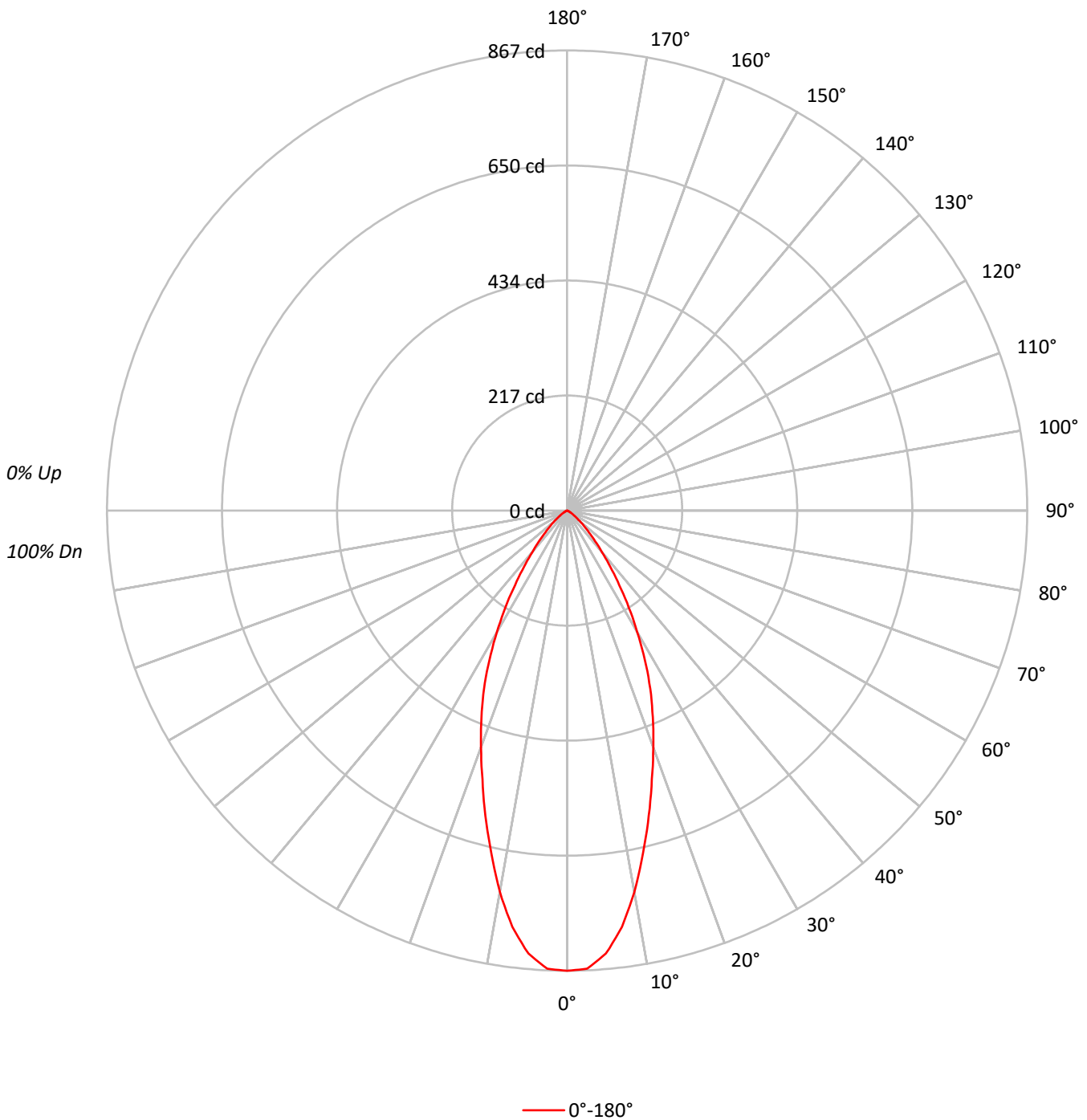
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P277709

CATALOG NUMBER: ML4D09\_D2WE - TIR45WFL55 - TL41RMW - TL42SMW

### Luminous Intensity Polar Plot





TEST NUMBER: P277709

CATALOG NUMBER: ML4D09\_D2WE - TIR45WFL55 - TL41RMW - TL42SMW

**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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87
3	102	96	91	87	100	95	90	86	92	88	85	90	86	84	87	85	82	81
4	97	90	84	80	95	89	83	79	86	82	78	84	81	78	83	79	77	75
5	92	84	78	74	91	83	78	74	81	77	73	80	75	72	78	74	72	70
6	88	79	73	69	86	78	72	68	77	72	68	75	71	67	74	70	67	66
7	84	74	68	64	82	74	68	64	72	67	64	71	67	63	70	66	63	62
8	80	70	64	60	78	70	64	60	68	63	60	67	63	59	66	62	59	58
9	76	66	60	57	75	66	60	56	65	60	56	64	59	56	63	59	56	55
10	72	63	57	53	71	62	57	53	62	57	53	61	56	53	60	56	53	52

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	427760
5°	414982
10°	365623
15°	303763
20°	249133
25°	201640
30°	150573
35°	103115
40°	65759
45°	40539
50°	23794
55°	13763
60°	6907
65°	3502
70°	1443
75°	0
80°	0
85°	0



TEST NUMBER: P277709

CATALOG NUMBER: ML4D09\_D2WE - TIR45WFL55 - TL41RMW - TL42SMW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.4	13.1
10°-20°	165.5	28.3
20°-30°	168.3	28.8
30°-40°	108.5	18.6
40°-50°	46.8	8.0
50°-60°	15.1	2.6
60°-70°	3.4	0.6
70°-80°	0.4	0.1
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°	410.2	70.2
0°-40°	518.8	88.8
0°-60°	580.6	99.3
0°-90°	584.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	584.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	867	
5°	838	76
15°	595	166
25°	370	168
35°	171	109
45°	58	47
55°	16	15
65°	3	3
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P277709

CATALOG NUMBER: ML4D09\_D2WE - TIR45WFL55 - TL41RMW - TL42SMW

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	867.0
2.5°	864.0
5°	837.9
7.5°	790.9
10°	729.8
12.5°	660.7
15°	594.7
17.5°	530.6
20°	474.5
22.5°	421.5
25°	370.4
27.5°	317.4
30°	264.3
32.5°	216.2
35°	171.2
37.5°	133.1
40°	102.1
42.5°	78.1
45°	58.1
47.5°	43.0
50°	31.0
52.5°	22.0
55°	16.0
57.5°	11.0
60°	7.0
62.5°	5.0
65°	3.0
67.5°	2.0
70°	1.0
72.5°	1.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)