

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: P300523

Luminaire Tested: **ML4D09\_27D2WE - TIR50WFL55 - TL43R2GMWBB - TL44S2GMWBB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P300523  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1902-156-37)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML4D09\_27D2WE - TIR50WFL55 - TL43R2GMWBB - TL44S2GMWBB  
Description: ML4 2700K, 900LM DIM-TO-WARM, 55 DEG WFL OPTIC, WITH ROUND/SQUARE  
DIFFUSED CLEAR LENS, MATTE WHITE FLANGE, BLACK LENS FRAME  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 508.0 lumens  
Efficiency: N/A  
Efficacy: 45.4 lumens/watt  
Spacing Criteria (0/90/45): 0.73 / 0.73 / 0.73  
Luminous Opening: Circular (Dia: 0.19' x H: 0')  
CIE Type: Direct

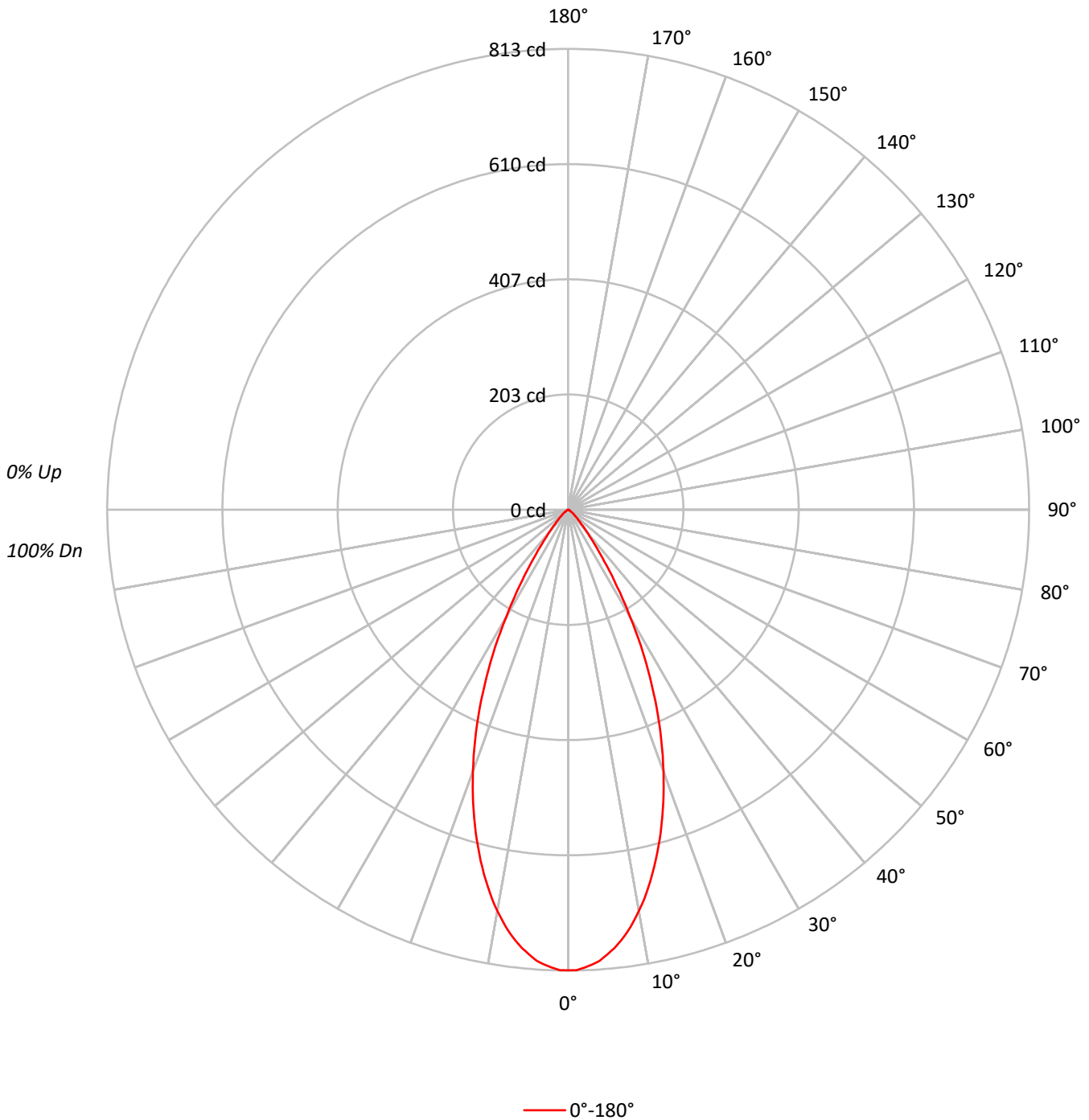
Input Watts (W): 11.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	92	90	88
3	104	98	93	89	102	96	92	89	94	90	87	91	88	86	89	87	84	83
4	99	92	87	83	97	91	86	82	89	85	81	87	83	80	85	82	79	78
5	94	87	81	77	93	86	81	77	84	80	76	82	78	75	81	77	75	73
6	90	82	76	72	89	81	76	72	80	75	72	78	74	71	77	73	71	69
7	86	78	72	68	85	77	72	68	76	71	67	74	70	67	73	70	67	65
8	82	74	68	64	81	73	68	64	72	67	64	71	67	64	70	66	63	62
9	79	70	64	61	78	69	64	61	69	64	60	68	63	60	67	63	60	59
10	76	67	61	58	75	66	61	58	65	61	57	65	60	57	64	60	57	56

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

	0°
0°	316817
5°	308244
10°	284534
15°	248204
20°	203775
25°	153299
30°	98401
35°	52729
40°	25902
45°	13783
50°	7884
55°	4758
60°	3119
65°	1845
70°	1140
75°	1506
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.0	14.4
10°-20°	170.0	33.5
20°-30°	161.0	31.7
30°-40°	73.3	14.4
40°-50°	20.9	4.1
50°-60°	6.8	1.3
60°-70°	2.3	0.5
70°-80°	0.7	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°	404.0	79.5
0°-40°	477.4	94.0
0°-60°	505.0	99.4
0°-90°	508.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	508.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	813	
5°	788	73
15°	615	170
25°	356	161
35°	111	73
45°	25	21
55°	7	7
65°	2	2
75°	1	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	812.7
1°	812.7
2°	808.7
3°	803.7
4°	797.7
5°	787.7
6°	777.7
7°	765.7
8°	751.8
9°	735.8
10°	718.8
11°	700.9
12°	680.9
13°	659.9
14°	638.0
15°	615.0
16°	592.0
17°	567.1
18°	543.1
19°	517.2
20°	491.2
21°	465.2
22°	438.3
23°	412.3
24°	384.4
25°	356.4
27.5°	287.5
30°	218.6
32.5°	159.7
35°	110.8
37.5°	74.9
40°	50.9
42.5°	34.9
45°	25.0
47.5°	18.0
50°	13.0
52.5°	10.0
55°	7.0
57.5°	5.0
60°	4.0
62.5°	3.0
65°	2.0
67.5°	2.0
70°	1.0
72.5°	1.0



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**CANDELA DISTRIBUTION (continued):**

	0°
75°	1.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)