

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: P300533

Luminaire Tested: **ML4D09\_27D2WE - TIR50WFL55 - TL41RBCU - TL42SBCU**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P300533  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1902-156-47)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ML4D09\_27D2WE - TIR50WFL55 - TL41RBCU - TL42SBCU  
Description: ML4 2700K, 900LM DIM-TO-WARM, 55 DEG WFL OPTIC, WITH ROUND/SQUARE PINHOLE BRUSHED COPPER FLANGE  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 543.0 lumens  
Efficiency: N/A  
Efficacy: 48.5 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

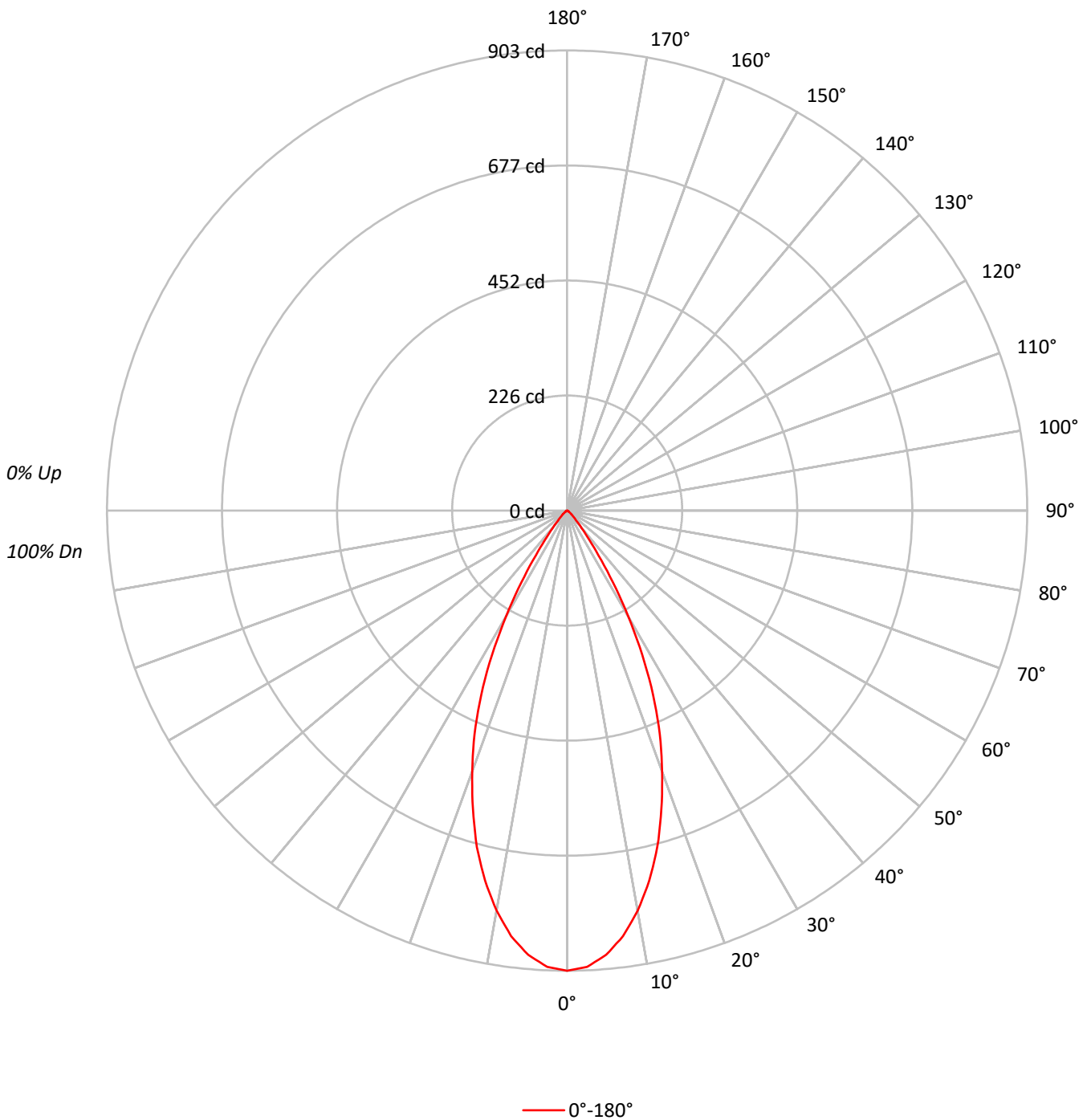
Input Watts (W): 11.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	109	107	105	105	104	102		102	100	99		98	97	96	95
2	109	105	101	98	107	103	100	97	100	97	95		97	95	93		94	92	91	89
3	104	98	94	90	102	97	93	89	94	91	88		92	89	87		90	87	85	84
4	100	93	88	84	98	92	87	83	90	86	82		88	84	81		86	83	81	79
5	95	88	82	78	94	87	82	78	85	81	77		83	80	77		82	79	76	75
6	91	83	78	74	90	82	77	73	81	76	73		79	75	72		78	75	72	71
7	87	79	73	69	86	78	73	69	77	72	69		76	72	69		75	71	68	67
8	83	75	69	66	82	74	69	66	73	69	65		72	68	65		71	68	65	64
9	80	71	66	62	79	71	66	62	70	65	62		69	65	62		68	64	62	60
10	77	68	63	59	76	68	63	59	67	62	59		66	62	59		65	61	59	57

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

	0°
0°	352058
5°	342445
10°	315489
15°	275971
20°	225969
25°	171838
30°	107718
35°	50969
40°	20915
45°	9924
50°	6065
55°	3398
60°	1559
65°	922
70°	0
75°	0
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.1	14.9
10°-20°	188.6	34.7
20°-30°	179.3	33.0
30°-40°	72.7	13.4
40°-50°	15.7	2.9
50°-60°	4.6	0.9
60°-70°	1.0	0.2
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°	449.0	82.7
0°-40°	521.7	96.1
0°-60°	542.0	99.8
0°-90°	543.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	543.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	903	
5°	875	81
15°	684	189
25°	400	179
35°	107	73
45°	18	16
55°	5	5
65°	1	1
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	903.1
2.5°	896.1
5°	875.1
7.5°	842.0
10°	797.0
12.5°	743.9
15°	683.8
17.5°	614.8
20°	544.7
22.5°	474.6
25°	399.5
27.5°	319.4
30°	239.3
32.5°	166.2
35°	107.1
37.5°	65.1
40°	41.1
42.5°	26.0
45°	18.0
47.5°	13.0
50°	10.0
52.5°	7.0
55°	5.0
57.5°	3.0
60°	2.0
62.5°	1.0
65°	1.0
67.5°	1.0
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
90°	0.0

(END OF REPORT)