

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: P275342

Luminaire Tested: **ML4D09_935 - TIR45FL40 - TL41RMW - TL42SMW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P275342
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-901-9)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09_935 - TIR45FL40 - TL41RMW - TL42SMW
Description: ML4 900LM 2700K, 90CRI, 40° FL OPTIC, WITH ROUND PINHOLE MATTE WHITE FLANGE
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1201.1 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 0.65 / 0.62
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

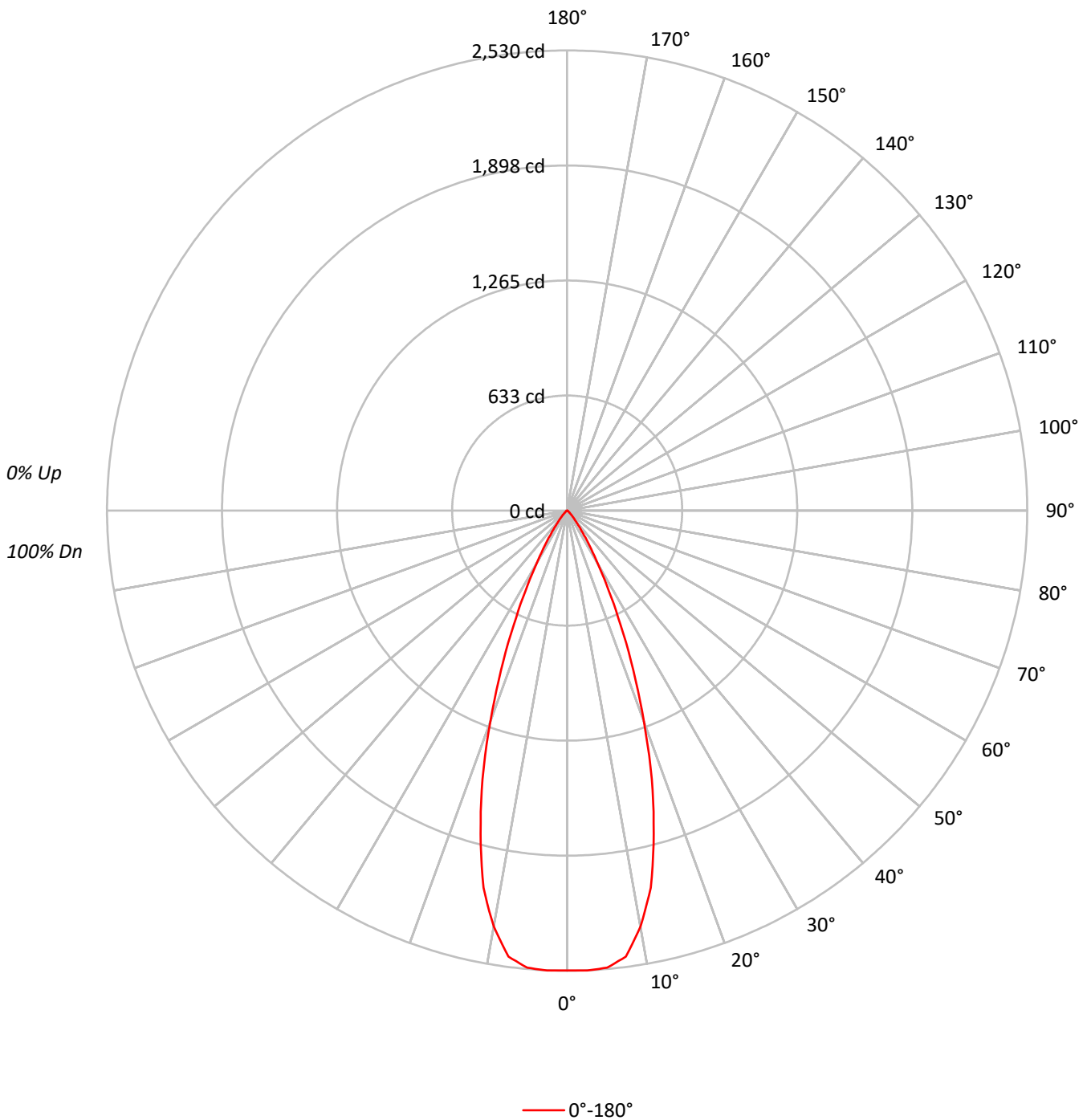
Input Watts (W): 11.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	114	112	110	108	112	110	108	106	106	104	103		102	101	100		99	98	97	95
2	110	106	102	99	108	104	101	98	101	98	96		98	96	94		95	93	92	90
3	105	100	96	92	103	99	95	92	96	93	90		94	91	89		91	89	87	86
4	101	95	90	87	99	94	89	86	92	88	85		90	87	84		88	85	83	82
5	97	90	85	82	96	89	85	81	88	84	81		86	83	80		85	82	79	78
6	93	86	81	77	92	85	81	77	84	80	77		83	79	76		81	78	76	74
7	90	82	77	74	89	82	77	73	80	76	73		79	76	73		78	75	72	71
8	87	79	74	70	86	78	73	70	77	73	70		76	72	70		75	72	69	68
9	83	75	70	67	82	75	70	67	74	70	67		73	69	67		73	69	66	65
10	81	72	68	64	80	72	67	64	71	67	64		71	67	64		70	66	64	63

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	1247313
5°	1249304
10°	1163601
15°	939383
20°	646696
25°	376877
30°	190225
35°	89442
40°	42444
45°	21839
50°	11130
55°	6709
60°	4440
65°	2568
70°	3174
75°	0
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.0	19.6
10°-20°	500.4	41.7
20°-30°	325.7	27.1
30°-40°	102.7	8.6
40°-50°	26.5	2.2
50°-60°	7.6	0.6
60°-70°	2.7	0.2
70°-80°	0.6	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°	1061.0	88.3
0°-40°	1163.7	96.9
0°-60°	1197.8	99.7
0°-90°	1201.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1201.1	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2528	
5°	2522	235
15°	1839	500
25°	692	326
35°	148	103
45°	31	27
55°	8	8
65°	2	3
75°	0	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2528.1
2.5°	2530.3
5°	2522.5
7.5°	2473.4
10°	2322.6
12.5°	2123.9
15°	1839.1
17.5°	1547.7
20°	1231.7
22.5°	950.3
25°	692.3
27.5°	494.7
30°	333.9
32.5°	226.7
35°	148.5
37.5°	99.4
40°	65.9
42.5°	45.8
45°	31.3
47.5°	22.3
50°	14.5
52.5°	11.2
55°	7.8
57.5°	5.6
60°	4.5
62.5°	3.3
65°	2.2
67.5°	2.2
70°	2.2
72.5°	1.1
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)