

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: P275341

Luminaire Tested: **ML4D09_930 - TIR45FL40 - TL41RMW - TL42SMW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P275341
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_930 - TIR45FL40 - TL41RMW - TL42SMW
Description: ML4 900LM 2700K, 90CRI, 40° FL 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: 1153.6 lumens
Efficiency: N/A
Efficacy: 102.1 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

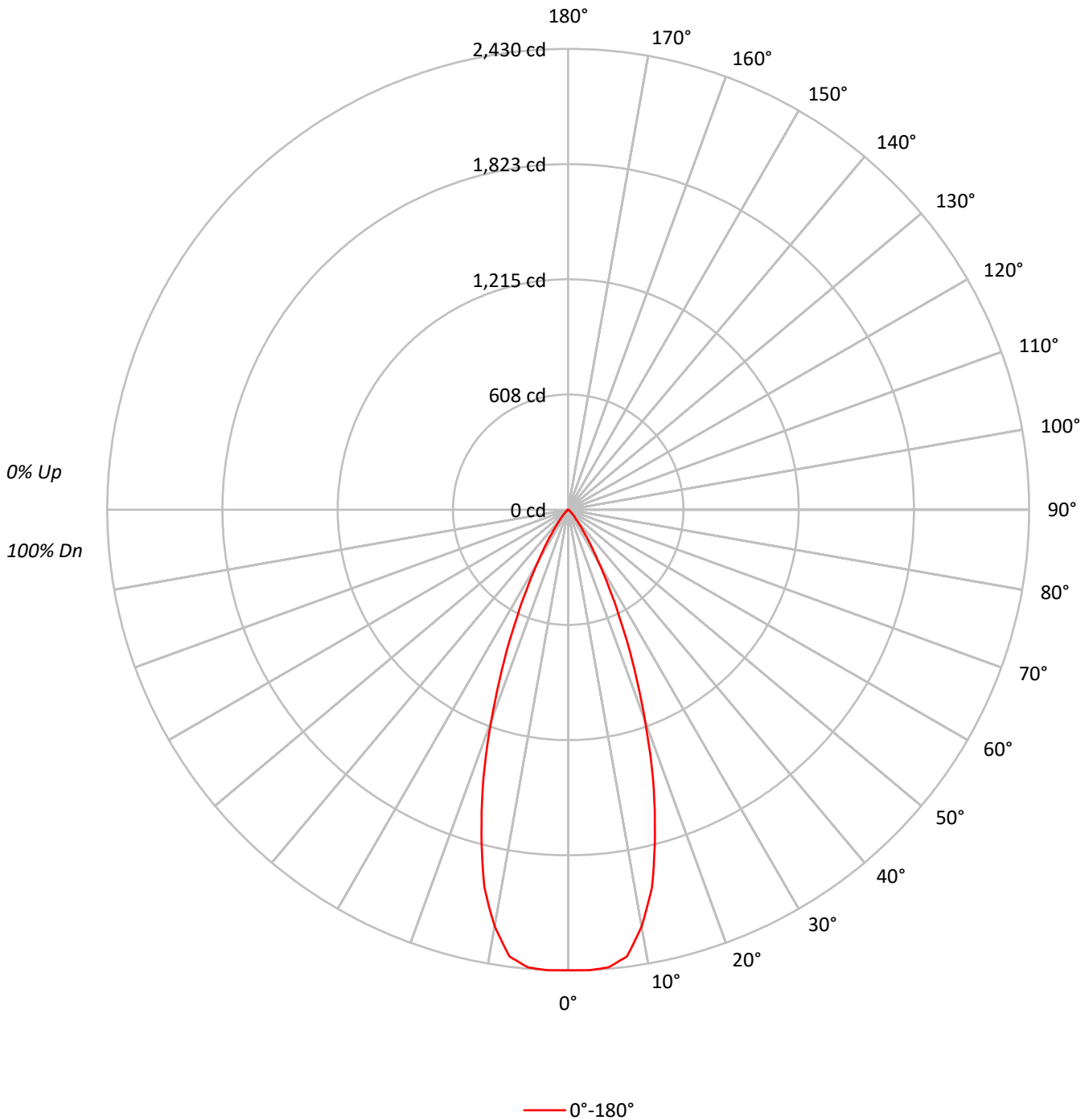
Input Watts (W): 11.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1198024
5°	1199926
10°	1117610
15°	902249
20°	621127
25°	362015
30°	182705
35°	85889
40°	40769
45°	20932
50°	10669
55°	6451
60°	4243
65°	2452
70°	3029
75°	0
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.7	19.6
10°-20°	480.6	41.7
20°-30°	312.8	27.1
30°-40°	98.6	8.6
40°-50°	25.5	2.2
50°-60°	7.2	0.6
60°-70°	2.6	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°	1019.1	88.3
0°-40°	1117.7	96.9
0°-60°	1150.4	99.7
0°-90°	1153.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1153.6	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2428	
5°	2423	226
15°	1766	481
25°	665	313
35°	143	99
45°	30	25
55°	8	7
65°	2	3
75°	0	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	2428.2
2.5°	2430.3
5°	2422.8
7.5°	2375.6
10°	2230.8
12.5°	2039.9
15°	1766.4
17.5°	1486.5
20°	1183.0
22.5°	912.7
25°	665.0
27.5°	475.1
30°	320.7
32.5°	217.7
35°	142.6
37.5°	95.5
40°	63.3
42.5°	44.0
45°	30.0
47.5°	21.5
50°	13.9
52.5°	10.7
55°	7.5
57.5°	5.4
60°	4.3
62.5°	3.2
65°	2.1
67.5°	2.1
70°	2.1
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)