

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: P277717

Luminaire Tested: **ML4D09_D2WE - TIR45SP15 - TL43R2GMWWB - TL44S2GMWWB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P277717
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-893-2)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09_D2WE - TIR45SP15 - TL43R2GMWWB - TL44S2GMWWB
Description: ML4 900LM 3000K, D2W, 15° SP OPTIC, WITH ROUND WITH ROUND DIFFUSED CLEAR LENS, MATTE WHITE FLANGE, WHITE LENS FRAME
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 586.0 lumens
Efficiency: N/A
Efficacy: 48.8 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.46 / 0.46
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

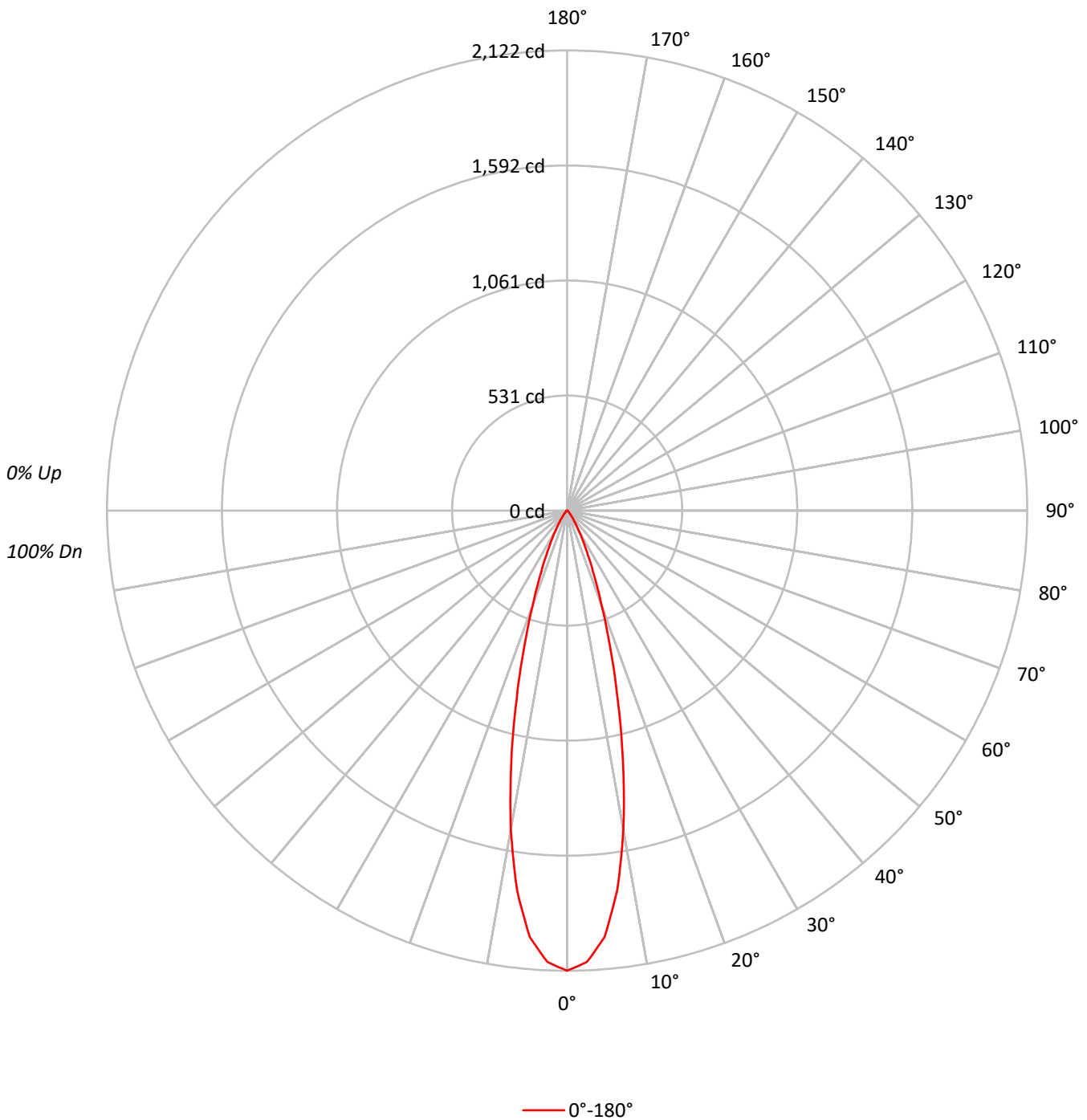
Input Watts (W): 12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	115	112	110	108	112	110	108	107	106	105	103	103	101	100	99	98	98	96
2	110	107	103	101	108	105	102	99	102	99	97	99	97	95	96	95	93	92
3	107	101	98	94	105	100	97	94	98	95	92	95	93	91	93	91	89	88
4	103	97	93	89	101	96	92	89	94	91	88	92	89	87	90	88	86	85
5	99	93	88	85	98	92	88	85	90	87	84	89	86	83	87	85	83	81
6	96	89	85	81	95	89	84	81	87	83	81	86	83	80	85	82	80	79
7	93	86	81	78	92	85	81	78	84	80	78	83	80	77	82	79	77	76
8	90	83	78	75	89	82	78	75	81	78	75	81	77	75	80	77	74	73
9	87	80	76	73	86	80	75	73	79	75	72	78	75	72	77	74	72	71
10	85	78	73	70	84	77	73	70	76	73	70	76	72	70	75	72	70	69

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	1046803
5°	977602
10°	748681
15°	459706
20°	242833
25°	123466
30°	62041
35°	31260
40°	16746
45°	9071
50°	5373
55°	3441
60°	2960
65°	2335
70°	2885
75°	1906
80°	2841
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.8	29.5
10°-20°	248.8	42.5
20°-30°	110.4	18.8
30°-40°	35.2	6.0
40°-50°	11.1	1.9
50°-60°	4.0	0.7
60°-70°	2.1	0.4
70°-80°	1.2	0.2
80°-90°	0.4	0.1
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°	532.0	90.8
0°-40°	567.2	96.8
0°-60°	582.3	99.4
0°-90°	586.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	586.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2122	
5°	1974	173
15°	900	249
25°	227	110
35°	52	35
45°	13	11
55°	4	4
65°	2	2
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2121.7
2.5°	2083.8
5°	1973.9
7.5°	1767.1
10°	1494.4
12.5°	1190.7
15°	900.0
17.5°	655.3
20°	462.5
22.5°	325.7
25°	226.8
27.5°	156.8
30°	108.9
32.5°	74.9
35°	51.9
37.5°	36.0
40°	26.0
42.5°	19.0
45°	13.0
47.5°	10.0
50°	7.0
52.5°	6.0
55°	4.0
57.5°	3.0
60°	3.0
62.5°	2.0
65°	2.0
67.5°	2.0
70°	2.0
72.5°	1.0
75°	1.0
77.5°	1.0
80°	1.0
82.5°	1.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)