

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: P277706

Luminaire Tested: **ML4D09_D2WE - TIR45WFL55 - TL43R2GORBBB - TL44S2GORBBB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P277706
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-893-11)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09_D2WE - TIR45WFL55 - TL43R2GORBBB - TL44S2GORBBB
Description: ML4 900LM 3000K, D2W, 55° WFL OPTIC, WITH ROUND DIFFUSED CLEAR LENS,
OIL RUBBED BRONZE FLANGE, BLACK LENS FRAME
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 534.7 lumens
Efficiency: N/A
Efficacy: 44.6 lumens/watt
Spacing Criteria (0/90/45): 0.69 / 0.69 / 0.75
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

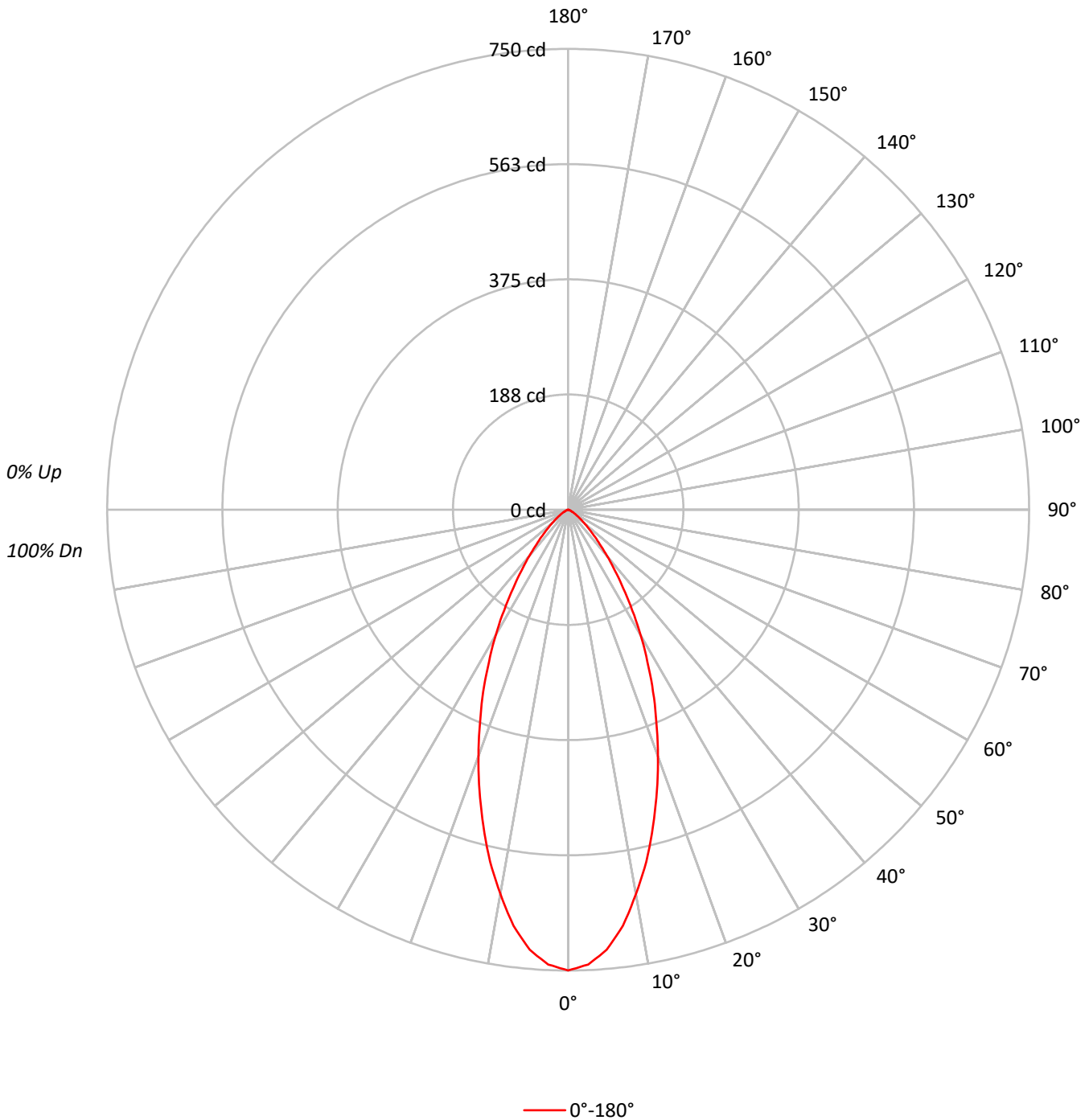
Input Watts (W): 12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	110	108	106	111	108	106	104	104	102	101		101	99	98		97	96	95	93
2	107	102	98	95	105	101	97	94	97	94	92		94	92	90		92	90	88	86
3	102	95	90	86	100	94	89	85	91	87	84		89	85	83		86	84	81	80
4	97	89	83	79	95	88	82	78	85	81	77		83	80	76		82	78	76	74
5	92	83	77	73	90	82	76	72	80	75	72		79	74	71		77	73	70	69
6	87	78	72	67	85	77	71	67	75	70	67		74	70	66		73	69	66	64
7	83	73	67	63	81	72	67	63	71	66	62		70	65	62		69	65	61	60
8	79	69	63	59	77	68	63	59	67	62	58		66	61	58		65	61	58	56
9	75	65	59	55	74	65	59	55	64	58	55		63	58	55		62	58	54	53
10	71	62	56	52	70	61	56	52	60	55	52		60	55	52		59	55	51	50

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	369985
5°	356045
10°	318079
15°	272197
20°	224141
25°	178014
30°	134451
35°	93960
40°	63118
45°	41167
50°	26097
55°	16343
60°	10854
65°	7005
70°	4328
75°	1906
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.9	12.3
10°-20°	148.0	27.7
20°-30°	149.3	27.9
30°-40°	99.1	18.5
40°-50°	47.0	8.8
50°-60°	17.9	3.3
60°-70°	6.2	1.2
70°-80°	1.4	0.3
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°	363.2	67.9
0°-40°	462.3	86.5
0°-60°	527.1	98.6
0°-90°	534.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	534.7	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	750	
5°	719	66
15°	533	148
25°	327	149
35°	156	99
45°	59	47
55°	19	18
65°	6	6
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	749.9
2.5°	740.9
5°	718.9
7.5°	682.9
10°	634.9
12.5°	586.9
15°	532.9
17.5°	479.9
20°	426.9
22.5°	375.0
25°	327.0
27.5°	279.0
30°	236.0
32.5°	194.0
35°	156.0
37.5°	125.0
40°	98.0
42.5°	76.0
45°	59.0
47.5°	45.0
50°	34.0
52.5°	25.0
55°	19.0
57.5°	14.0
60°	11.0
62.5°	8.0
65°	6.0
67.5°	4.0
70°	3.0
72.5°	2.0
75°	1.0
77.5°	1.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)