

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: P300506

Luminaire Tested: **ML4D09_27D2WE - TIR45FL40 - TL43R2G0RBBB - TL44S2G0RBBB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P300506
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1902-156-18)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09_27D2WE - TIR45FL40 - TL43R2G0RBBB - TL44S2G0RBBB
Description: ML4 2700K, 900LM DIM-TO-WARM, 40 DEG FL OPTIC, WITH ROUND/SQUARE DIFFUSED CLEAR LENS, OIL RUBBED BRONZE FLANGE, BLACK LENS FRAME
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 507.0 lumens
Efficiency: N/A
Efficacy: 45.3 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.57
Luminous Opening: Circular (Dia: 0.21' x H: 0')
CIE Type: Direct

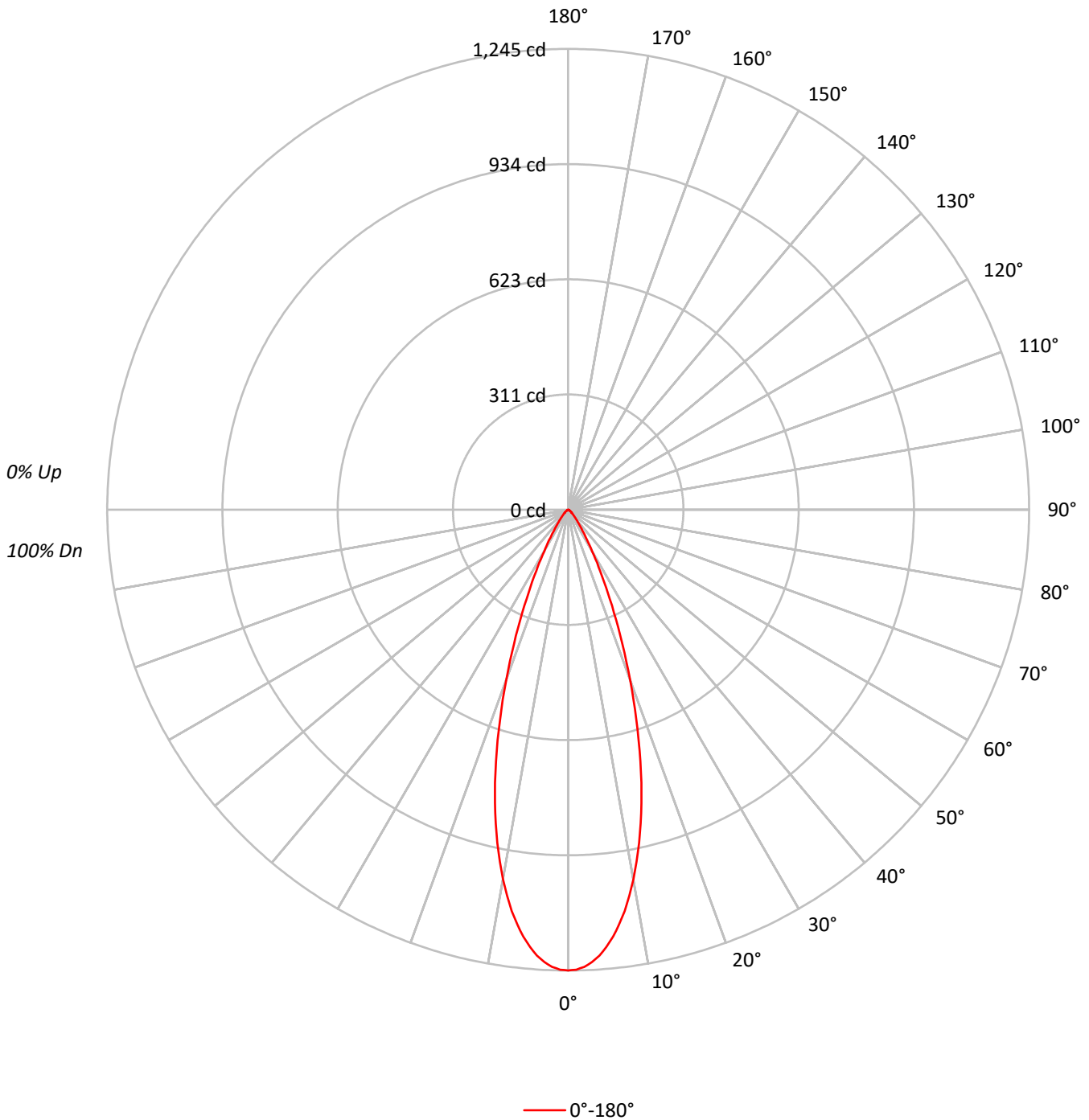
Input Watts (W): 11.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	105	102	99	107	104	101	98	101	98	96	98	96	94	95	93	92	90
3	105	100	95	92	103	98	94	91	96	93	90	93	91	88	91	89	87	86
4	101	95	90	86	99	93	89	86	91	88	85	89	86	84	88	85	83	82
5	97	90	85	81	96	89	84	81	87	83	80	86	82	80	84	81	79	78
6	93	86	81	77	92	85	80	77	84	80	76	82	79	76	81	78	75	74
7	90	82	77	73	89	81	77	73	80	76	73	79	75	73	78	75	72	71
8	87	79	74	70	85	78	73	70	77	73	70	76	72	69	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°	393096
5°	375865
10°	325029
15°	249591
20°	164420
25°	92746
30°	47072
35°	23900
40°	13190
45°	8038
50°	5404
55°	3854
60°	2526
65°	2241
70°	1846
75°	1220
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.7	21.2
10°-20°	206.9	40.8
20°-30°	125.3	24.7
30°-40°	42.1	8.3
40°-50°	14.8	2.9
50°-60°	6.3	1.2
60°-70°	2.7	0.5
70°-80°	1.1	0.2
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°	440.0	86.8
0°-40°	482.1	95.1
0°-60°	503.2	99.3
0°-90°	507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	507.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1245	
5°	1186	108
15°	764	207
25°	266	125
35°	62	42
45°	18	15
55°	7	6
65°	3	3
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	1244.9
1°	1242.9
2°	1235.9
3°	1223.8
4°	1207.8
5°	1185.8
6°	1159.8
7°	1128.8
8°	1094.8
9°	1055.7
10°	1013.7
11°	968.7
12°	920.6
13°	869.6
14°	816.6
15°	763.5
16°	707.5
17°	651.5
18°	595.4
19°	542.4
20°	489.3
21°	438.3
22°	391.3
23°	346.2
24°	304.2
25°	266.2
27.5°	186.1
30°	129.1
32.5°	89.1
35°	62.0
37.5°	44.0
40°	32.0
42.5°	24.0
45°	18.0
47.5°	14.0
50°	11.0
52.5°	9.0
55°	7.0
57.5°	5.0
60°	4.0
62.5°	3.0
65°	3.0
67.5°	2.0
70°	2.0
72.5°	1.0



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CANDELA DISTRIBUTION (continued):

	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)