

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P485013

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1STD-50-120-EDD**

Issue Date: 3/1/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P485013
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35357)
Test Lab: INNOVATION CENTER
Issue Date: 3/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-89BC-LD4-1STD-50-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

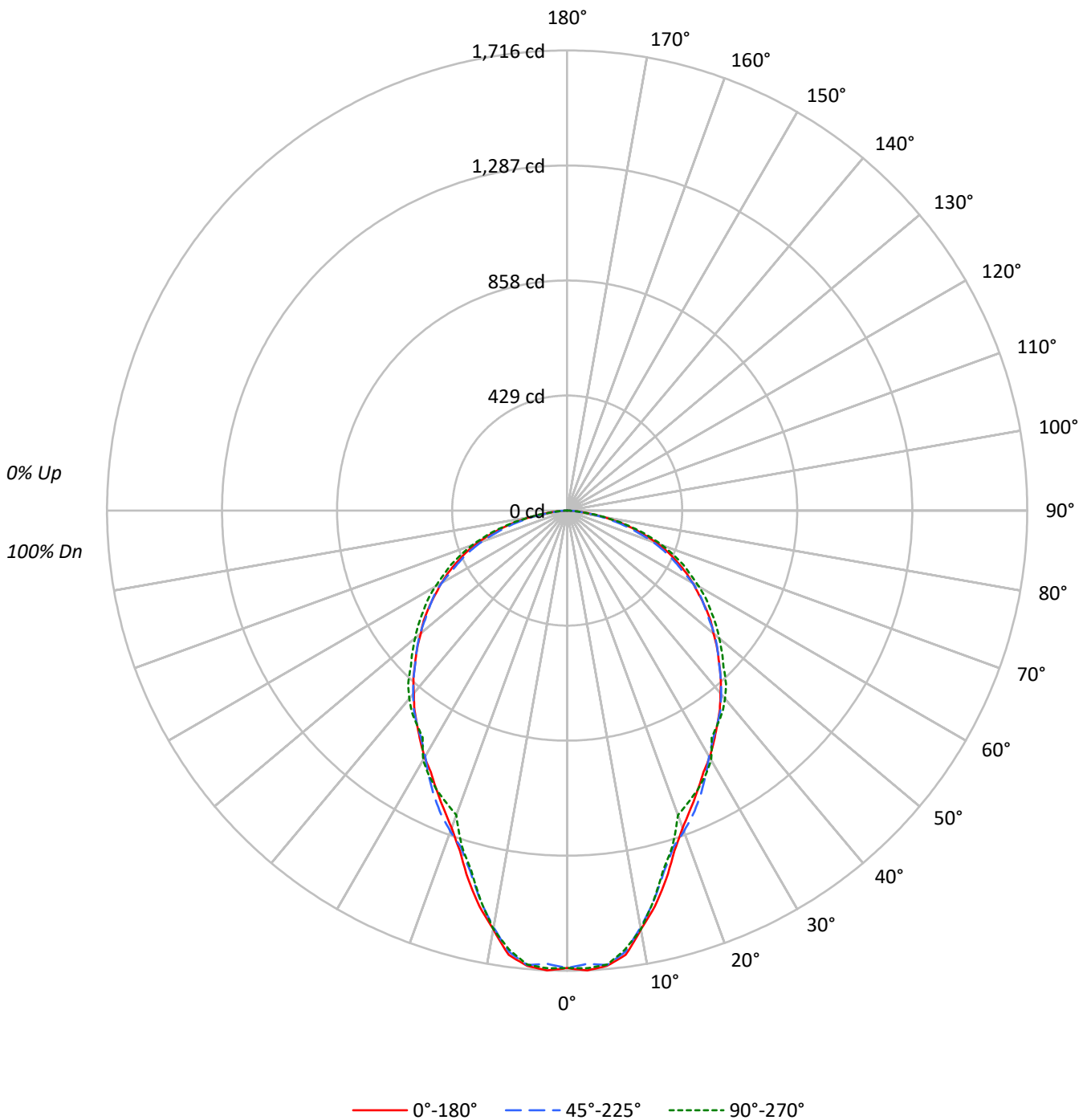
Lumens per Lamp: N/A
Luminaire Lumens: 3648.2 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4591	4591	4591
5°	4603	4596	4591
10°	4332	4312	4329
15°	3969	3882	3860
20°	3605	3645	3460
25°	3419	3487	3414
30°	3302	3288	3338
35°	3206	3206	3206
40°	3125	3138	3216
45°	3048	3045	3140
50°	2982	3005	3097
55°	2951	2938	3072
60°	2912	2907	3055
65°	2875	2784	3039
70°	2820	2659	2959
75°	2610	2361	2740
80°	2117	1925	2173
85°	1343	1204	1176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	4.3
10°-20°	396.1	10.9
20°-30°	534.9	14.7
30°-40°	612.6	16.8
40°-50°	627.5	17.2
50°-60°	569.4	15.6
60°-70°	444.4	12.2
70°-80°	252.0	6.9
80°-90°	52.9	1.5
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°	1089.5	29.9
0°-40°	1702.1	46.7
0°-60°	2898.9	79.5
0°-90°	3648.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3648.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1704	1685	1701	1705	1700	159
15°	1425	1429	1394	1401	1386	398
25°	1151	1166	1174	1146	1150	531
35°	976	978	976	977	976	611
45°	801	807	800	833	825	619
55°	629	628	626	648	655	562
65°	452	442	437	458	477	447
75°	251	232	227	240	264	263
85°	44	39	39	36	38	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1705.9	1705.9	1705.9	1705.9	1705.9
2.5°	1716.5	1703.2	1691.7	1710.3	1708.5
5°	1704.1	1684.6	1701.4	1705.0	1699.7
7.5°	1671.3	1658.9	1659.7	1652.6	1651.8
10°	1585.2	1592.3	1578.1	1590.5	1584.3
12.5°	1511.6	1516.0	1491.2	1496.5	1489.4
15°	1424.7	1429.1	1393.6	1400.7	1385.6
17.5°	1329.7	1345.7	1316.4	1325.3	1309.3
20°	1258.8	1272.1	1273.0	1258.8	1208.2
22.5°	1202.9	1216.2	1226.8	1184.3	1178.9
25°	1151.4	1166.5	1174.5	1146.1	1149.7
27.5°	1100.0	1116.8	1116.8	1123.1	1115.1
30°	1062.7	1069.8	1058.3	1081.4	1074.3
32.5°	1018.4	1021.0	1011.3	1028.1	1003.3
35°	975.8	977.6	975.8	976.7	975.8
37.5°	935.0	930.6	938.5	933.2	950.1
40°	889.7	889.7	893.3	902.2	915.5
42.5°	848.1	851.6	847.2	872.0	877.3
45°	801.0	807.2	800.2	833.0	825.0
47.5°	758.5	761.1	759.3	781.5	783.3
50°	712.3	715.9	717.7	737.2	739.8
52.5°	674.2	673.3	667.1	695.5	699.9
55°	628.9	628.1	626.3	648.5	654.7
57.5°	582.8	583.7	588.1	600.6	615.6
60°	541.1	536.7	540.2	555.3	567.7
62.5°	498.5	490.6	482.6	507.4	518.9
65°	451.5	441.8	437.3	457.7	477.3
67.5°	408.1	392.1	389.4	403.6	426.7
70°	358.4	338.9	338.0	348.6	376.1
72.5°	303.4	286.5	282.1	296.3	321.1
75°	251.0	232.4	227.1	240.4	263.5
77.5°	194.3	179.2	175.6	182.7	201.4
80°	136.6	127.7	124.2	126.9	140.2
82.5°	86.0	79.8	78.1	77.2	84.3
85°	43.5	39.0	39.0	36.4	38.1
87.5°	13.3	12.4	11.5	8.9	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)