

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: P485671

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2HI-40-120-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: P485671
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-24-2-INS-89BC-LD4-2HI-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

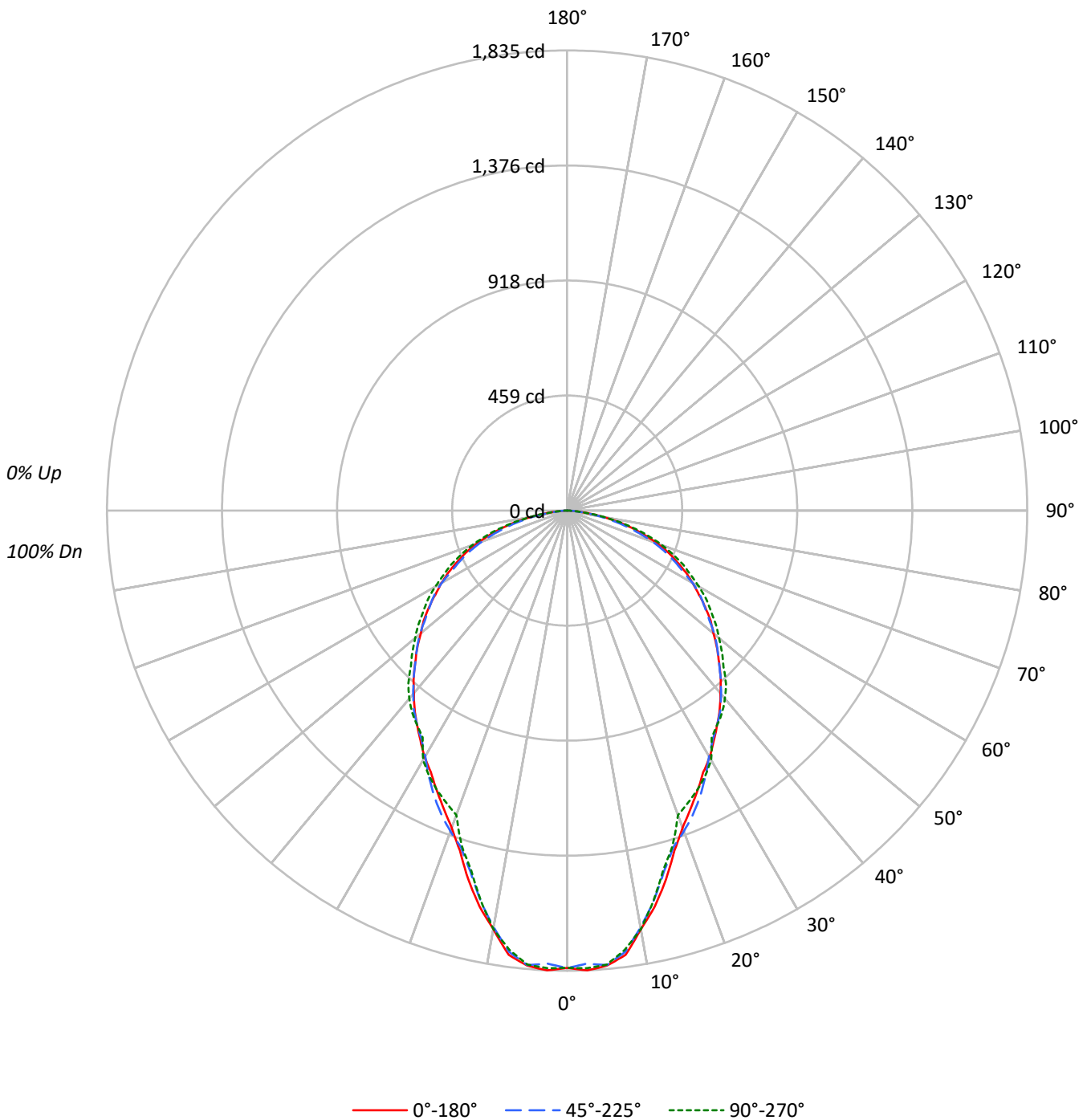
Lumens per Lamp: N/A
Luminaire Lumens: 3900.2 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	4908	4908	4908
5°	4921	4914	4908
10°	4631	4610	4628
15°	4243	4151	4127
20°	3854	3897	3699
25°	3655	3728	3649
30°	3530	3516	3569
35°	3427	3427	3427
40°	3341	3355	3438
45°	3259	3255	3357
50°	3188	3212	3311
55°	3155	3141	3284
60°	3113	3109	3267
65°	3074	2977	3249
70°	3014	2843	3164
75°	2791	2524	2929
80°	2263	2058	2321
85°	1436	1288	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.4	4.3
10°-20°	423.5	10.9
20°-30°	571.9	14.7
30°-40°	654.9	16.8
40°-50°	670.8	17.2
50°-60°	608.7	15.6
60°-70°	475.1	12.2
70°-80°	269.5	6.9
80°-90°	56.6	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°	1164.7	29.9
0°-40°	1819.6	46.7
0°-60°	3099.1	79.5
0°-90°	3900.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3900.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1824	1824	1824	1824	1824	
5°	1822	1801	1819	1823	1817	170
15°	1523	1528	1490	1498	1481	426
25°	1231	1247	1256	1225	1229	568
35°	1043	1045	1043	1044	1043	653
45°	856	863	855	890	882	662
55°	672	671	670	693	700	601
65°	483	472	468	489	510	478
75°	268	248	243	257	282	281
85°	46	42	42	39	41	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1823.7	1823.7	1823.7	1823.7	1823.7
2.5°	1835.1	1820.9	1808.5	1828.4	1826.5
5°	1821.8	1800.9	1819.0	1822.8	1817.1
7.5°	1786.7	1773.4	1774.4	1766.8	1765.9
10°	1694.7	1702.3	1687.1	1700.4	1693.8
12.5°	1616.0	1620.8	1594.2	1599.9	1592.3
15°	1523.1	1527.8	1489.9	1497.5	1481.3
17.5°	1421.6	1438.7	1407.4	1416.9	1399.8
20°	1345.7	1360.0	1360.9	1345.7	1291.7
22.5°	1286.0	1300.2	1311.6	1266.1	1260.4
25°	1231.0	1247.1	1255.6	1225.3	1229.1
27.5°	1176.0	1194.0	1194.0	1200.6	1192.1
30°	1136.1	1143.7	1131.4	1156.1	1148.5
32.5°	1088.7	1091.6	1081.1	1099.2	1072.6
35°	1043.2	1045.1	1043.2	1044.1	1043.2
37.5°	999.6	994.8	1003.4	997.7	1015.7
40°	951.2	951.2	955.0	964.5	978.7
42.5°	906.6	910.4	905.7	932.2	937.9
45°	856.4	863.0	855.4	890.5	882.0
47.5°	810.9	813.7	811.8	835.5	837.4
50°	761.5	765.3	767.2	788.1	790.9
52.5°	720.8	719.8	713.2	743.5	748.3
55°	672.4	671.4	669.5	693.3	699.9
57.5°	623.1	624.0	628.8	642.0	658.2
60°	578.5	573.8	577.6	593.7	607.0
62.5°	533.0	524.4	515.9	542.5	554.8
65°	482.7	472.3	467.5	489.4	510.2
67.5°	436.2	419.2	416.3	431.5	456.2
70°	383.1	362.3	361.3	372.7	402.1
72.5°	324.3	306.3	301.6	316.8	343.3
75°	268.4	248.5	242.8	257.0	281.7
77.5°	207.7	191.6	187.8	195.4	215.3
80°	146.0	136.6	132.8	135.6	149.8
82.5°	92.0	85.4	83.5	82.5	90.1
85°	46.5	41.7	41.7	38.9	40.8
87.5°	14.2	13.3	12.3	9.5	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)