

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: P485726

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3STD-30-120-EDD-90**

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: P485726
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-LD4-3STD-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

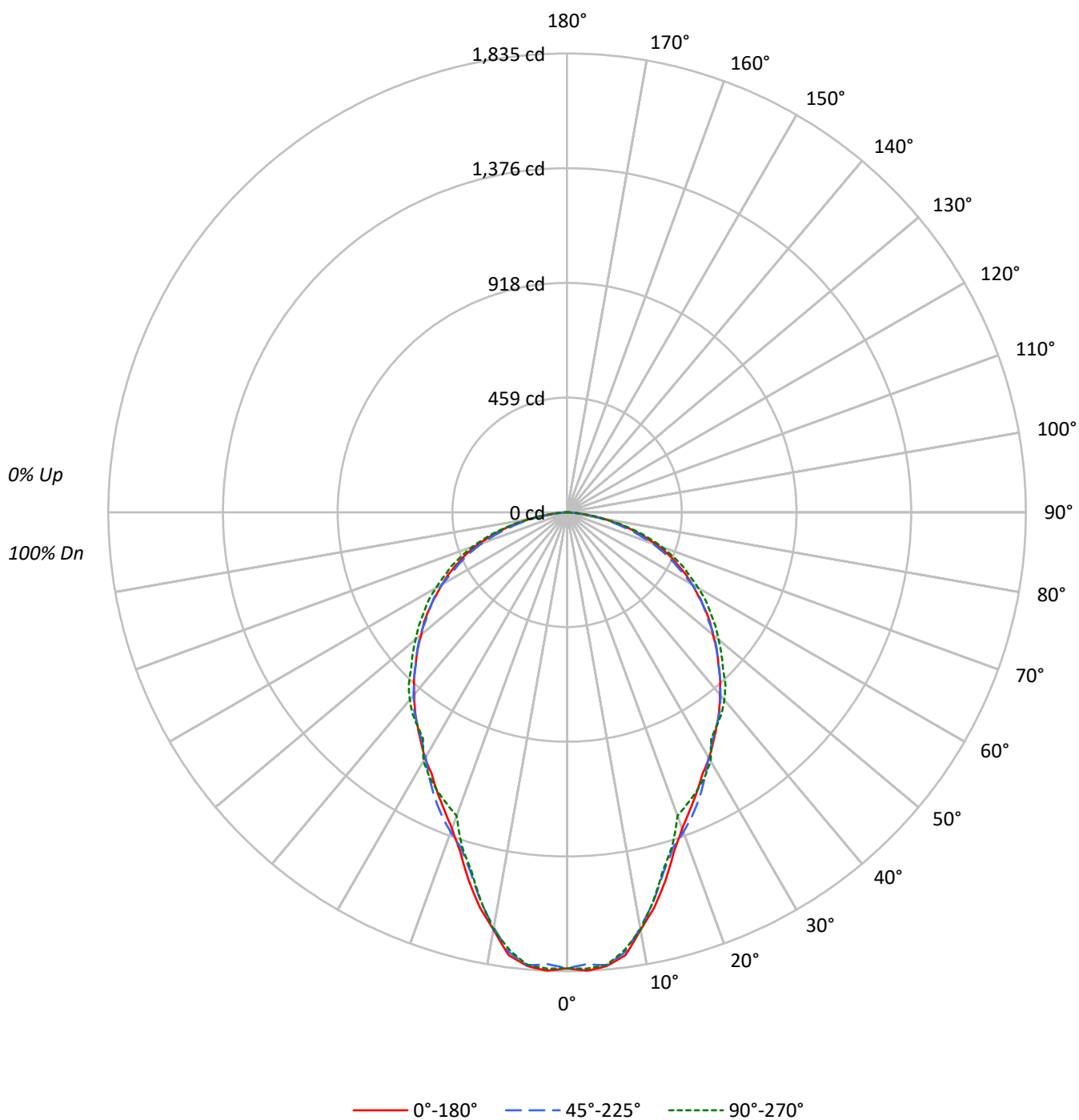
Lumens per Lamp: N/A
Luminaire Lumens: 3899.4 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	100	96	106	102	98	95		98	95	92		94	91	89		90	88	86
2	99	91	84	79	97	89	83	78		86	81	76		82	78	74		79	76	73
3	91	80	72	66	88	79	71	65		76	69	64		73	67	63		70	66	62
4	83	71	63	56	81	70	62	56		67	60	55		65	59	54		63	58	53
5	77	64	55	48	75	63	54	48		61	53	48		59	52	47		57	51	47
6	71	58	49	43	69	57	48	42		55	48	42		53	47	42		52	46	41
7	66	53	44	38	64	52	44	38		50	43	37		49	42	37		47	41	37
8	61	48	40	34	60	47	39	34		46	39	34		45	38	33		44	38	33
9	58	44	36	31	56	44	36	31		43	35	30		41	35	30		40	35	30
10	54	41	33	28	53	40	33	28		40	33	28		39	32	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4906	4906	4906
5°	4920	4913	4907
10°	4630	4609	4627
15°	4242	4150	4126
20°	3853	3896	3698
25°	3654	3727	3649
30°	3530	3515	3568
35°	3426	3426	3426
40°	3341	3354	3437
45°	3258	3255	3356
50°	3188	3211	3311
55°	3154	3141	3283
60°	3113	3108	3266
65°	3073	2976	3248
70°	3014	2843	3163
75°	2790	2523	2928
80°	2263	2056	2321
85°	1436	1288	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.3	4.3
10°-20°	423.4	10.9
20°-30°	571.8	14.7
30°-40°	654.8	16.8
40°-50°	670.7	17.2
50°-60°	608.6	15.6
60°-70°	475.0	12.2
70°-80°	269.4	6.9
80°-90°	56.5	1.4
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°	1164.5	29.9
0°-40°	1819.3	46.7
0°-60°	3098.5	79.5
0°-90°	3899.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3899.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1823	1823	1823	1823	1823	
5°	1821	1801	1819	1822	1817	170
15°	1523	1528	1490	1497	1481	426
25°	1231	1247	1255	1225	1229	568
35°	1043	1045	1043	1044	1043	653
45°	856	863	855	890	882	662
55°	672	671	669	693	700	601
65°	483	472	467	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°	1823.3	1823.3	1823.3	1823.3	1823.3
2.5°	1834.7	1820.5	1808.2	1828.1	1826.2
5°	1821.4	1800.6	1818.6	1822.4	1816.7
7.5°	1786.3	1773.1	1774.0	1766.4	1765.5
10°	1694.4	1702.0	1686.8	1700.1	1693.4
12.5°	1615.7	1620.4	1593.9	1599.6	1592.0
15°	1522.8	1527.5	1489.6	1497.2	1481.0
17.5°	1421.3	1438.4	1407.1	1416.6	1399.5
20°	1345.5	1359.7	1360.6	1345.5	1291.4
22.5°	1285.7	1299.9	1311.3	1265.8	1260.1
25°	1230.7	1246.8	1255.4	1225.0	1228.8
27.5°	1175.7	1193.7	1193.7	1200.4	1191.8
30°	1135.9	1143.5	1131.2	1155.8	1148.2
32.5°	1088.5	1091.3	1080.9	1098.9	1072.4
35°	1043.0	1044.9	1043.0	1043.9	1043.0
37.5°	999.4	994.6	1003.2	997.5	1015.5
40°	951.0	951.0	954.8	964.3	978.5
42.5°	906.4	910.2	905.5	932.0	937.7
45°	856.2	862.8	855.2	890.3	881.8
47.5°	810.7	813.5	811.6	835.3	837.2
50°	761.4	765.2	767.1	787.9	790.8
52.5°	720.6	719.7	713.0	743.4	748.1
55°	672.3	671.3	669.4	693.1	699.7
57.5°	622.9	623.9	628.6	641.9	658.0
60°	578.4	573.6	577.4	593.6	606.8
62.5°	532.9	524.3	515.8	542.4	554.7
65°	482.6	472.2	467.4	489.3	510.1
67.5°	436.2	419.1	416.2	431.4	456.1
70°	383.1	362.2	361.3	372.6	402.0
72.5°	324.3	306.3	301.5	316.7	343.2
75°	268.3	248.4	242.7	257.0	281.6
77.5°	207.6	191.5	187.7	195.3	215.2
80°	146.0	136.5	132.7	135.6	149.8
82.5°	92.0	85.3	83.4	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)