

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: P485823

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6LO-30-120-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: P485823
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-LD4-6LO-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

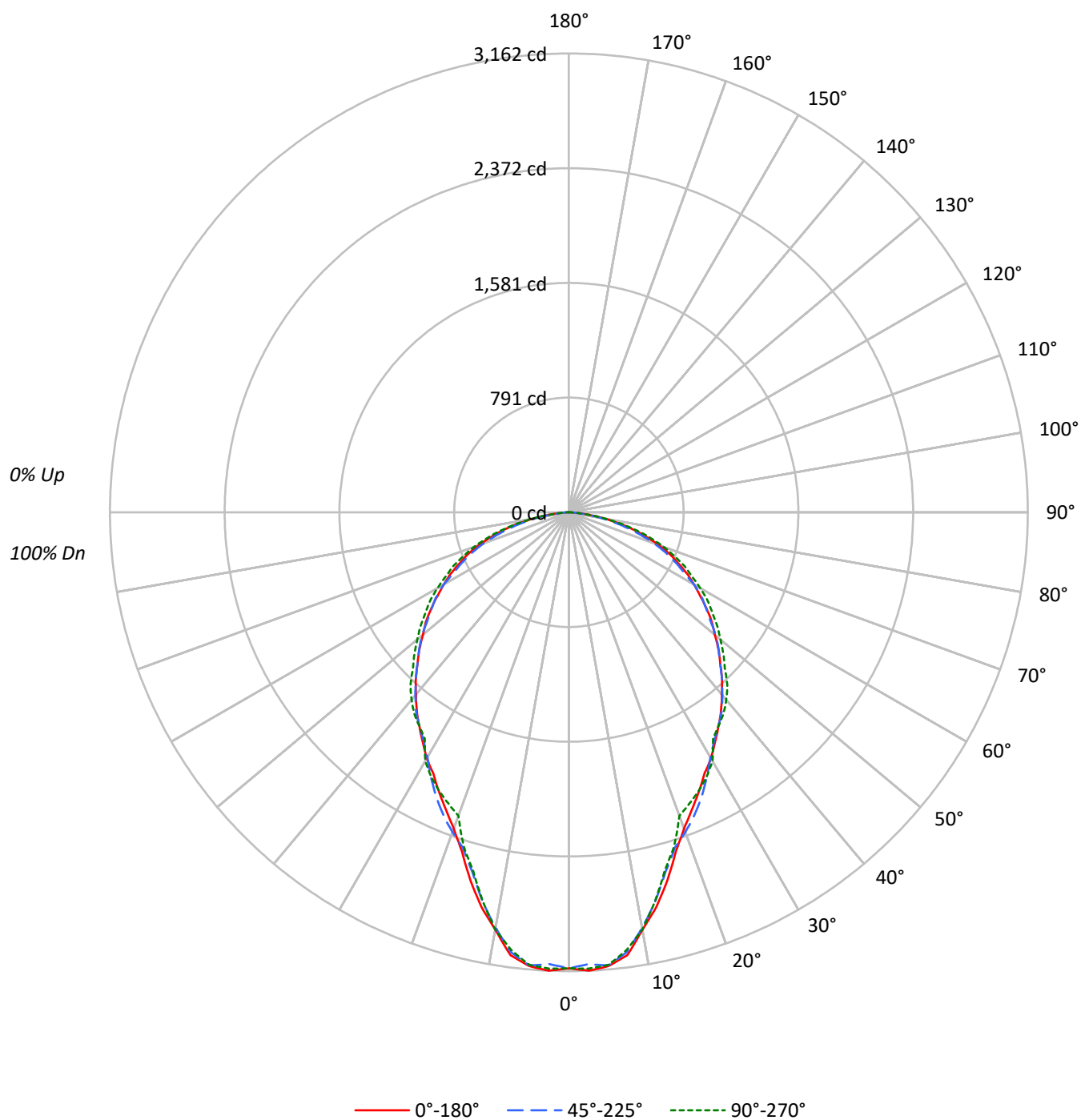
Lumens per Lamp: N/A
Luminaire Lumens: 6719.6 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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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CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-6LO-30-120-EDD

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°	8455	8455	8455
5°	8479	8465	8457
10°	7978	7943	7974
15°	7310	7151	7110
20°	6639	6714	6373
25°	6297	6423	6288
30°	6082	6057	6148
35°	5904	5904	5904
40°	5757	5780	5923
45°	5615	5609	5783
50°	5493	5534	5705
55°	5435	5412	5657
60°	5364	5356	5628
65°	5296	5129	5597
70°	5194	4898	5451
75°	4808	4349	5046
80°	3899	3544	4001
85°	2473	2220	2171



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.8	4.3
10°-20°	729.6	10.9
20°-30°	985.3	14.7
30°-40°	1128.3	16.8
40°-50°	1155.7	17.2
50°-60°	1048.7	15.6
60°-70°	818.5	12.2
70°-80°	464.2	6.9
80°-90°	97.4	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°	2006.7	29.9
0°-40°	3135.0	46.7
0°-60°	5339.4	79.5
0°-90°	6719.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6719.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3142	3142	3142	3142	3142	
5°	3139	3103	3134	3140	3131	293
15°	2624	2632	2567	2580	2552	733
25°	2121	2149	2163	2111	2118	979
35°	1797	1801	1797	1799	1797	1126
45°	1475	1487	1474	1534	1520	1141
55°	1158	1157	1154	1194	1206	1035
65°	832	814	806	843	879	824
75°	462	428	418	443	485	484
85°	80	72	72	67	70	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3142.0	3142.0	3142.0	3142.0	3142.0
2.5°	3161.6	3137.1	3115.9	3150.2	3146.9
5°	3138.8	3102.8	3133.9	3140.4	3130.6
7.5°	3078.3	3055.4	3057.1	3044.0	3042.4
10°	2919.8	2932.9	2906.7	2929.6	2918.2
12.5°	2784.2	2792.4	2746.6	2756.4	2743.4
15°	2624.1	2632.2	2566.9	2580.0	2552.2
17.5°	2449.2	2478.7	2424.7	2441.1	2411.7
20°	2318.5	2343.0	2344.7	2318.5	2225.4
22.5°	2215.6	2240.1	2259.7	2181.3	2171.5
25°	2120.8	2148.6	2163.3	2111.0	2117.6
27.5°	2026.1	2057.1	2057.1	2068.5	2053.8
30°	1957.4	1970.5	1949.3	1991.7	1978.7
32.5°	1875.7	1880.6	1862.7	1893.7	1848.0
35°	1797.3	1800.6	1797.3	1798.9	1797.3
37.5°	1722.2	1714.0	1728.7	1718.9	1749.9
40°	1638.8	1638.8	1645.4	1661.7	1686.2
42.5°	1562.0	1568.6	1560.4	1606.1	1615.9
45°	1475.4	1486.9	1473.8	1534.3	1519.5
47.5°	1397.0	1401.9	1398.6	1439.5	1442.8
50°	1312.0	1318.6	1321.8	1357.8	1362.7
52.5°	1241.8	1240.1	1228.7	1281.0	1289.2
55°	1158.4	1156.8	1153.5	1194.4	1205.8
57.5°	1073.5	1075.1	1083.3	1106.2	1133.9
60°	996.7	988.5	995.1	1022.8	1045.7
62.5°	918.3	903.6	888.9	934.6	955.8
65°	831.7	813.7	805.5	843.1	879.0
67.5°	751.6	722.2	717.3	743.4	785.9
70°	660.1	624.2	622.5	642.1	692.8
72.5°	558.8	527.8	519.6	545.7	591.5
75°	462.4	428.1	418.3	442.8	485.3
77.5°	357.8	330.1	323.5	336.6	370.9
80°	251.6	235.3	228.7	233.7	258.2
82.5°	158.5	147.1	143.8	142.2	155.2
85°	80.1	71.9	71.9	67.0	70.3
87.5°	24.5	22.9	21.2	16.3	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)