

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: P487042

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4LO-20-120-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: P487042
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-24-4-INS-89BC-LD4-4LO-20-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

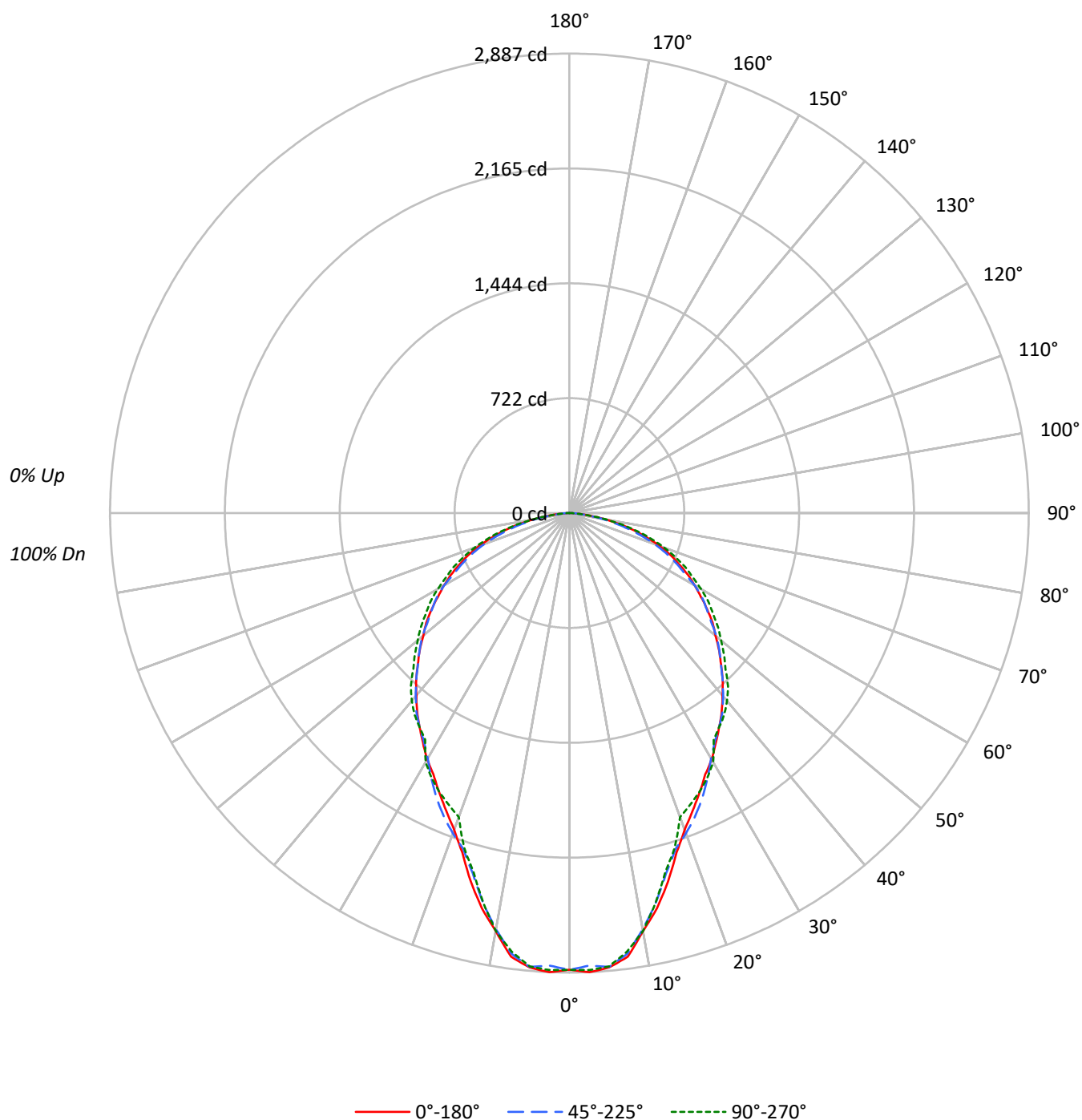
Lumens per Lamp: N/A
Luminaire Lumens: 6136.4 lumens
Efficiency: N/A
Efficacy: 65.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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

TEST NUMBER: P487042

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4LO-20-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P487042

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4LO-20-120-EDD-90

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
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°	3861	3861	3861
5°	3871	3865	3861
10°	3643	3627	3641
15°	3338	3265	3247
20°	3032	3066	2910
25°	2875	2933	2871
30°	2777	2766	2807
35°	2696	2696	2696
40°	2629	2639	2705
45°	2564	2561	2641
50°	2508	2527	2605
55°	2482	2471	2583
60°	2449	2445	2570
65°	2418	2342	2556
70°	2371	2236	2489
75°	2195	1986	2304
80°	1781	1619	1827
85°	1129	1014	991



TEST NUMBER: P487042

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4LO-20-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.5	4.3
10°-20°	666.3	10.9
20°-30°	899.8	14.7
30°-40°	1030.4	16.8
40°-50°	1055.4	17.2
50°-60°	957.7	15.6
60°-70°	747.4	12.2
70°-80°	423.9	6.9
80°-90°	89.0	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°	1832.6	29.9
0°-40°	2862.9	46.7
0°-60°	4876.0	79.5
0°-90°	6136.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6136.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2869	2869	2869	2869	2869	
5°	2866	2834	2862	2868	2859	268
15°	2396	2404	2344	2356	2331	670
25°	1937	1962	1976	1928	1934	894
35°	1641	1644	1641	1643	1641	1028
45°	1347	1358	1346	1401	1388	1042
55°	1058	1056	1053	1091	1101	945
65°	760	743	736	770	803	753
75°	422	391	382	404	443	442
85°	73	66	66	61	64	97
90°	0	0	0	0	0	



TEST NUMBER: P487042

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-4LO-20-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2869.3	2869.3	2869.3	2869.3	2869.3
2.5°	2887.2	2864.9	2845.5	2876.8	2873.8
5°	2866.3	2833.5	2861.9	2867.8	2858.9
7.5°	2811.1	2790.2	2791.7	2779.8	2778.3
10°	2666.4	2678.3	2654.5	2675.4	2664.9
12.5°	2542.6	2550.0	2508.2	2517.2	2505.3
15°	2396.3	2403.8	2344.1	2356.0	2330.7
17.5°	2236.7	2263.5	2214.3	2229.2	2202.4
20°	2117.3	2139.7	2141.2	2117.3	2032.3
22.5°	2023.3	2045.7	2063.6	1992.0	1983.0
25°	1936.8	1962.1	1975.6	1927.8	1933.8
27.5°	1850.2	1878.6	1878.6	1889.0	1875.6
30°	1787.5	1799.5	1780.1	1818.9	1806.9
32.5°	1712.9	1717.4	1701.0	1729.4	1687.6
35°	1641.3	1644.3	1641.3	1642.8	1641.3
37.5°	1572.7	1565.2	1578.7	1569.7	1598.1
40°	1496.6	1496.6	1502.6	1517.5	1539.9
42.5°	1426.5	1432.4	1425.0	1466.7	1475.7
45°	1347.4	1357.8	1345.9	1401.1	1387.7
47.5°	1275.8	1280.2	1277.2	1314.6	1317.5
50°	1198.2	1204.1	1207.1	1239.9	1244.4
52.5°	1134.0	1132.5	1122.1	1169.8	1177.3
55°	1057.9	1056.4	1053.4	1090.7	1101.2
57.5°	980.3	981.8	989.3	1010.2	1035.5
60°	910.2	902.7	908.7	934.1	955.0
62.5°	838.6	825.1	811.7	853.5	872.9
65°	759.5	743.1	735.6	769.9	802.8
67.5°	686.4	659.5	655.0	678.9	717.7
70°	602.8	570.0	568.5	586.4	632.7
72.5°	510.3	482.0	474.5	498.4	540.1
75°	422.3	390.9	382.0	404.4	443.2
77.5°	326.8	301.4	295.4	307.4	338.7
80°	229.8	214.9	208.9	213.4	235.8
82.5°	144.7	134.3	131.3	129.8	141.8
85°	73.1	65.7	65.7	61.2	64.2
87.5°	22.4	20.9	19.4	14.9	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)