

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: P485825

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6LO-35-120-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: P485825
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-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

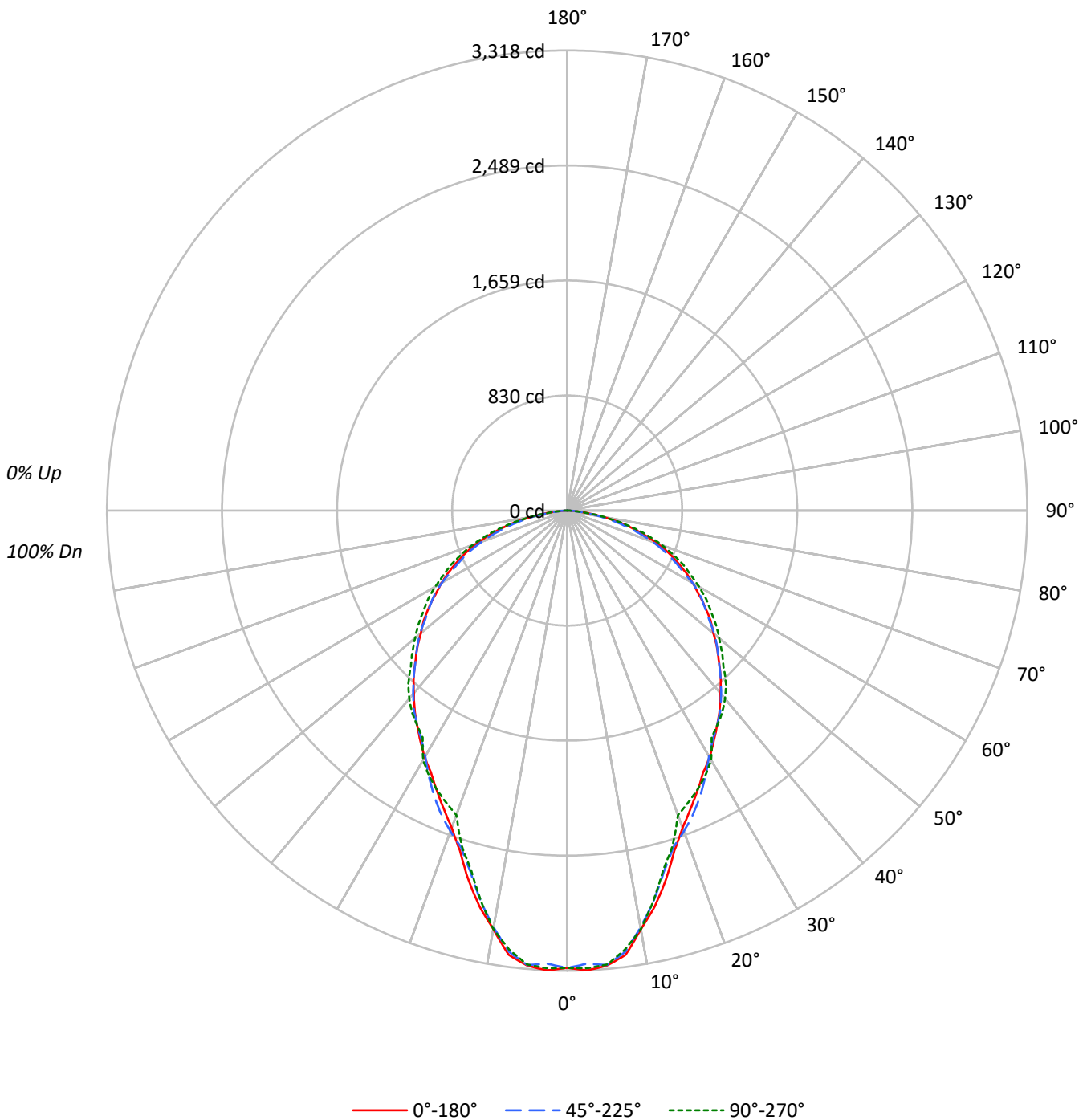
Lumens per Lamp: N/A
Luminaire Lumens: 7052.8 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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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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°	8874	8874	8874
5°	8899	8885	8876
10°	8374	8337	8369
15°	7673	7506	7463
20°	6969	7047	6689
25°	6609	6742	6599
30°	6384	6357	6453
35°	6197	6197	6197
40°	6042	6066	6217
45°	5893	5887	6070
50°	5765	5808	5988
55°	5704	5680	5938
60°	5630	5621	5907
65°	5558	5384	5875
70°	5451	5141	5721
75°	5046	4564	5295
80°	4093	3721	4200
85°	2594	2331	2276



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.3	4.3
10°-20°	765.8	10.9
20°-30°	1034.2	14.7
30°-40°	1184.3	16.8
40°-50°	1213.1	17.2
50°-60°	1100.7	15.6
60°-70°	859.1	12.2
70°-80°	487.2	6.9
80°-90°	102.3	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°	2106.2	29.9
0°-40°	3290.5	46.7
0°-60°	5604.2	79.5
0°-90°	7052.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7052.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3298	3298	3298	3298	3298	
5°	3294	3257	3289	3296	3286	308
15°	2754	2763	2694	2708	2679	770
25°	2226	2255	2271	2216	2223	1027
35°	1886	1890	1886	1888	1886	1182
45°	1549	1561	1547	1610	1595	1197
55°	1216	1214	1211	1254	1266	1087
65°	873	854	846	885	923	865
75°	485	449	439	465	509	508
85°	84	76	76	70	74	111
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3297.8	3297.8	3297.8	3297.8	3297.8
2.5°	3318.4	3292.7	3270.4	3306.4	3303.0
5°	3294.4	3256.7	3289.3	3296.1	3285.8
7.5°	3230.9	3206.9	3208.7	3194.9	3193.2
10°	3064.6	3078.3	3050.9	3074.9	3062.9
12.5°	2922.3	2930.8	2882.8	2893.1	2879.4
15°	2754.2	2762.8	2694.2	2707.9	2678.7
17.5°	2570.7	2601.6	2545.0	2562.1	2531.3
20°	2433.5	2459.2	2460.9	2433.5	2335.7
22.5°	2325.5	2351.2	2371.8	2289.4	2279.2
25°	2226.0	2255.1	2270.6	2215.7	2222.6
27.5°	2126.5	2159.1	2159.1	2171.1	2155.7
30°	2054.5	2068.2	2045.9	2090.5	2076.8
32.5°	1968.8	1973.9	1955.0	1987.6	1939.6
35°	1886.4	1889.9	1886.4	1888.1	1886.4
37.5°	1807.5	1799.0	1814.4	1804.1	1836.7
40°	1720.1	1720.1	1726.9	1744.1	1769.8
42.5°	1639.5	1646.3	1637.8	1685.8	1696.1
45°	1548.6	1560.6	1546.9	1610.3	1594.9
47.5°	1466.3	1471.4	1468.0	1510.9	1514.3
50°	1377.1	1384.0	1387.4	1425.1	1430.3
52.5°	1303.4	1301.6	1289.6	1344.5	1353.1
55°	1215.9	1214.2	1210.7	1253.6	1265.6
57.5°	1126.7	1128.4	1137.0	1161.0	1190.2
60°	1046.1	1037.5	1044.4	1073.6	1097.6
62.5°	963.8	948.4	932.9	980.9	1003.2
65°	872.9	854.0	845.5	884.9	922.6
67.5°	788.9	758.0	752.9	780.3	824.9
70°	692.8	655.1	653.4	674.0	727.1
72.5°	586.5	553.9	545.4	572.8	620.8
75°	485.3	449.3	439.0	464.7	509.3
77.5°	375.6	346.4	339.6	353.3	389.3
80°	264.1	247.0	240.1	245.2	271.0
82.5°	166.3	154.3	150.9	149.2	162.9
85°	84.0	75.5	75.5	70.3	73.7
87.5°	25.7	24.0	22.3	17.1	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)