

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: P485811

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6HI-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: P485811
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-LD4-6HI-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

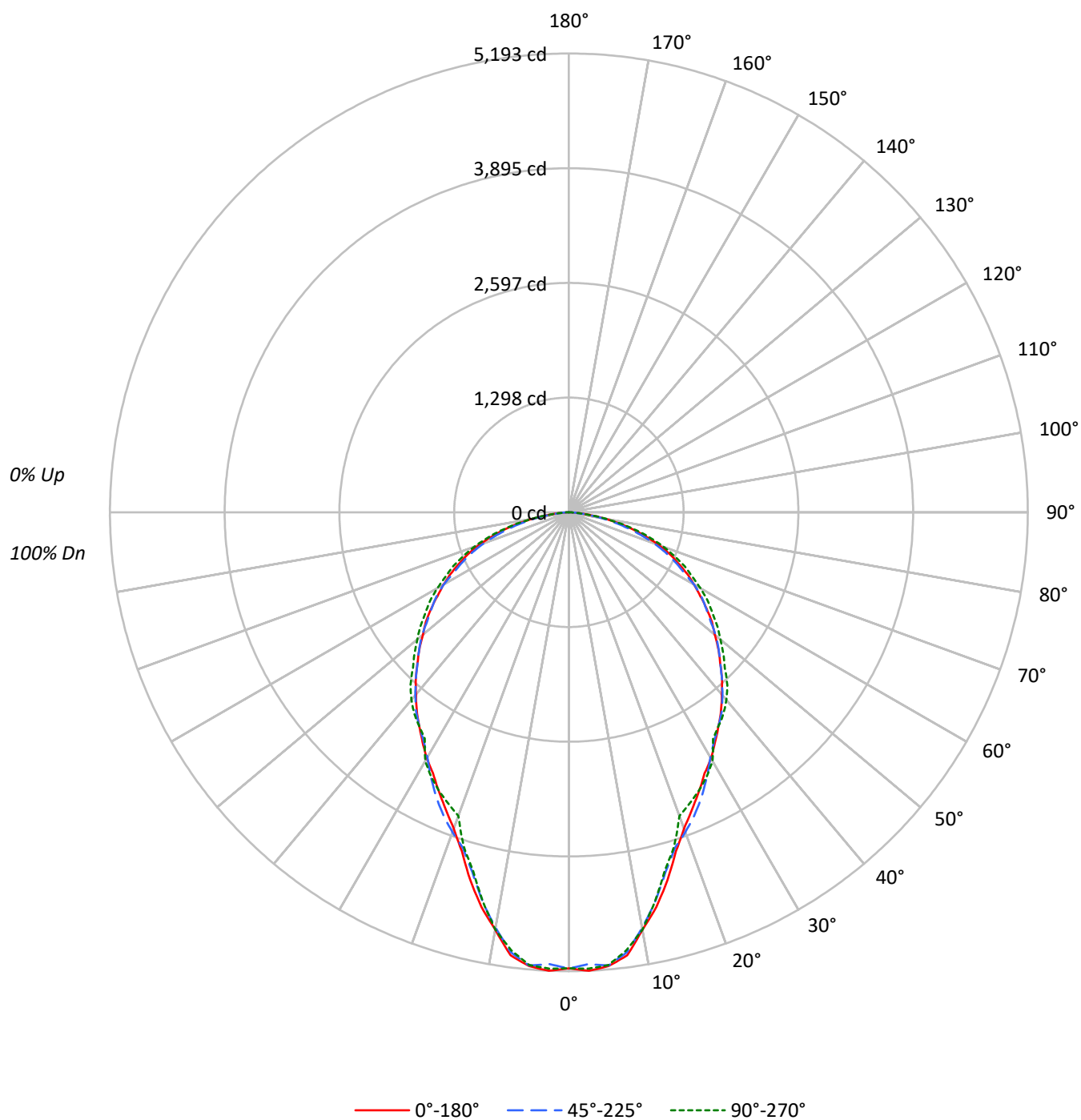
Lumens per Lamp: N/A
Luminaire Lumens: 11037.6 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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-LD4-6HI-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°	13888	13888	13888
5°	13927	13905	13891
10°	13105	13047	13098
15°	12008	11746	11679
20°	10906	11029	10468
25°	10344	10551	10328
30°	9991	9949	10099
35°	9699	9699	9699
40°	9456	9494	9730
45°	9223	9213	9499
50°	9023	9090	9371
55°	8928	8890	9293
60°	8811	8797	9245
65°	8699	8425	9194
70°	8531	8046	8954
75°	7897	7144	8288
80°	6405	5822	6572
85°	4060	3646	3563



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	479.4	4.3
10°-20°	1198.4	10.9
20°-30°	1618.5	14.7
30°-40°	1853.4	16.8
40°-50°	1898.4	17.2
50°-60°	1722.6	15.6
60°-70°	1344.4	12.2
70°-80°	762.5	6.9
80°-90°	160.1	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°	3296.2	29.9
0°-40°	5149.6	46.7
0°-60°	8770.6	79.5
0°-90°	11037.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11037.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5161	5161	5161	5161	5161	
5°	5156	5097	5148	5158	5142	482
15°	4310	4324	4216	4238	4192	1205
25°	3484	3529	3554	3468	3478	1608
35°	2952	2958	2952	2955	2952	1849
45°	2424	2442	2421	2520	2496	1874
55°	1903	1900	1895	1962	1981	1701
65°	1366	1337	1323	1385	1444	1354
75°	760	703	687	727	797	795
85°	132	118	118	110	115	174
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5161.1	5161.1	5161.1	5161.1	5161.1
2.5°	5193.3	5153.0	5118.1	5174.5	5169.1
5°	5155.7	5096.7	5147.7	5158.4	5142.3
7.5°	5056.4	5018.8	5021.5	5000.1	4997.4
10°	4796.1	4817.6	4774.6	4812.2	4793.4
12.5°	4573.3	4586.7	4511.6	4527.7	4506.2
15°	4310.3	4323.7	4216.4	4237.8	4192.2
17.5°	4023.1	4071.4	3982.9	4009.7	3961.4
20°	3808.4	3848.7	3851.4	3808.4	3655.4
22.5°	3639.3	3679.6	3711.8	3583.0	3566.9
25°	3483.7	3529.3	3553.5	3467.6	3478.3
27.5°	3328.0	3379.0	3379.0	3397.8	3373.6
30°	3215.3	3236.8	3201.9	3271.6	3250.2
32.5°	3081.1	3089.1	3059.6	3110.6	3035.5
35°	2952.3	2957.6	2952.3	2954.9	2952.3
37.5°	2828.8	2815.4	2839.5	2823.4	2874.4
40°	2691.9	2691.9	2702.7	2729.5	2769.8
42.5°	2565.8	2576.5	2563.1	2638.2	2654.4
45°	2423.5	2442.3	2420.9	2520.2	2496.0
47.5°	2294.7	2302.8	2297.4	2364.5	2369.9
50°	2155.2	2165.9	2171.3	2230.3	2238.4
52.5°	2039.7	2037.1	2018.3	2104.2	2117.6
55°	1902.9	1900.2	1894.8	1961.9	1980.7
57.5°	1763.3	1766.0	1779.4	1817.0	1862.6
60°	1637.2	1623.7	1634.5	1680.1	1717.7
62.5°	1508.3	1484.2	1460.0	1535.2	1570.1
65°	1366.1	1336.6	1323.2	1384.9	1443.9
67.5°	1234.6	1186.3	1178.2	1221.2	1290.9
70°	1084.3	1025.2	1022.6	1054.8	1138.0
72.5°	917.9	866.9	853.5	896.4	971.6
75°	759.5	703.2	687.1	727.3	797.1
77.5°	587.8	542.1	531.4	552.9	609.2
80°	413.3	386.5	375.7	383.8	424.1
82.5°	260.3	241.5	236.2	233.5	255.0
85°	131.5	118.1	118.1	110.0	115.4
87.5°	40.3	37.6	34.9	26.8	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)