

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: P485809

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6HI-27-120-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: P485809
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-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

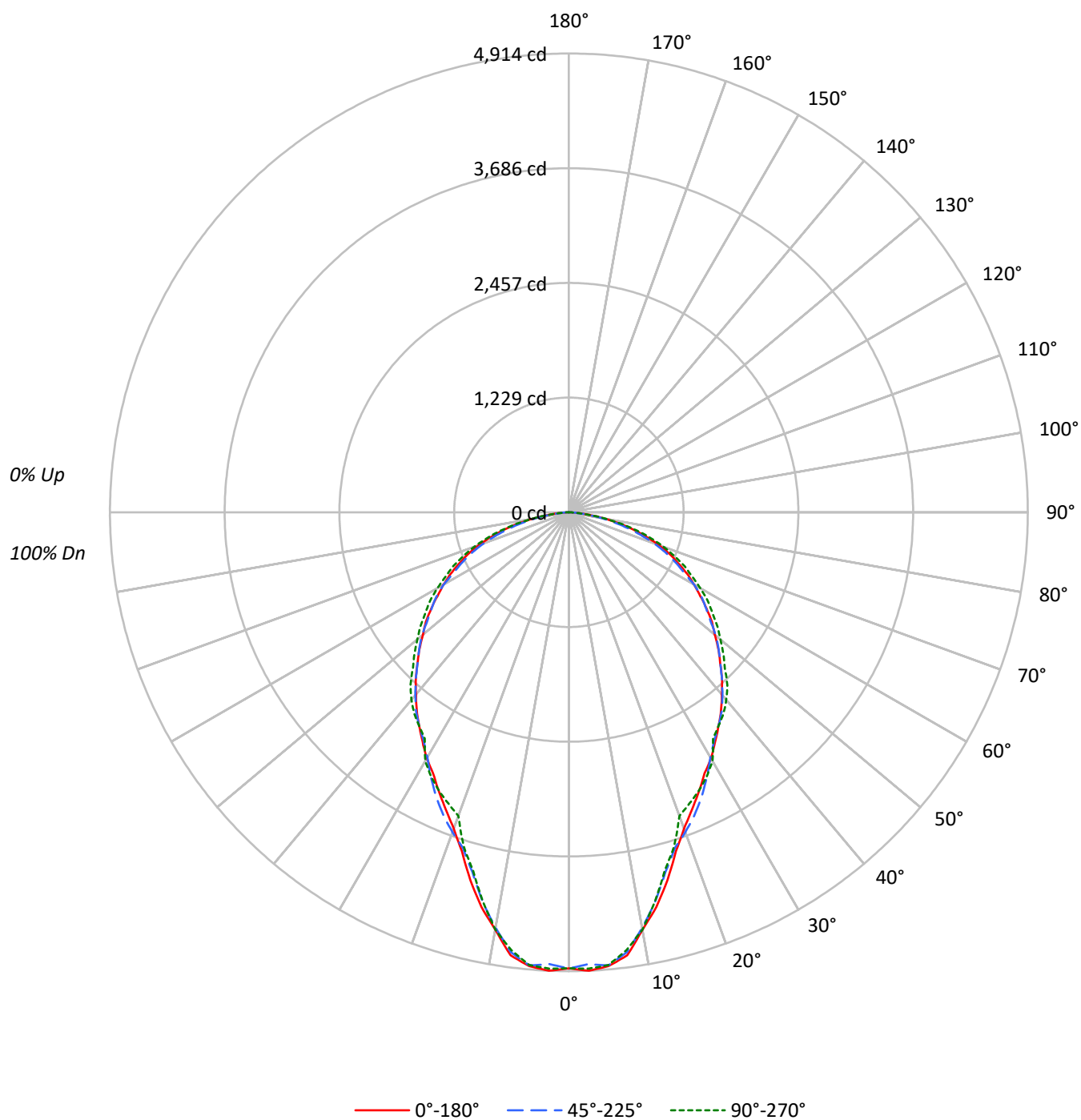
Lumens per Lamp: N/A
Luminaire Lumens: 10443.8 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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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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°	13141	13141	13141
5°	13178	13157	13144
10°	12400	12345	12393
15°	11362	11114	11051
20°	10319	10436	9905
25°	9787	9983	9772
30°	9453	9414	9556
35°	9177	9177	9177
40°	8948	8983	9206
45°	8727	8717	8988
50°	8537	8601	8866
55°	8447	8412	8792
60°	8337	8323	8747
65°	8230	7972	8699
70°	8072	7612	8471
75°	7472	6759	7842
80°	6061	5509	6217
85°	3841	3449	3372



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	453.6	4.3
10°-20°	1133.9	10.9
20°-30°	1531.4	14.7
30°-40°	1753.7	16.8
40°-50°	1796.3	17.2
50°-60°	1629.9	15.6
60°-70°	1272.1	12.2
70°-80°	721.5	6.9
80°-90°	151.4	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°	3118.9	29.9
0°-40°	4872.5	46.7
0°-60°	8298.7	79.5
0°-90°	10443.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10443.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4883	4883	4883	4883	4883	
5°	4878	4822	4871	4881	4866	456
15°	4078	4091	3990	4010	3967	1140
25°	3296	3339	3362	3281	3291	1521
35°	2793	2798	2793	2796	2793	1750
45°	2293	2311	2291	2385	2362	1773
55°	1800	1798	1793	1856	1874	1609
65°	1293	1265	1252	1310	1366	1281
75°	719	665	650	688	754	752
85°	124	112	112	104	109	164
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4883.4	4883.4	4883.4	4883.4	4883.4
2.5°	4913.9	4875.8	4842.8	4896.1	4891.1
5°	4878.4	4822.5	4870.7	4880.9	4865.7
7.5°	4784.4	4748.8	4751.4	4731.1	4728.5
10°	4538.1	4558.4	4517.7	4553.3	4535.5
12.5°	4327.3	4340.0	4268.9	4284.1	4263.8
15°	4078.4	4091.1	3989.5	4009.9	3966.7
17.5°	3806.7	3852.4	3768.6	3794.0	3748.3
20°	3603.5	3641.6	3644.2	3603.5	3458.8
22.5°	3443.5	3481.6	3512.1	3390.2	3375.0
25°	3296.3	3339.4	3362.3	3281.0	3291.2
27.5°	3149.0	3197.2	3197.2	3215.0	3192.1
30°	3042.3	3062.6	3029.6	3095.6	3075.3
32.5°	2915.3	2923.0	2895.0	2943.3	2872.2
35°	2793.4	2798.5	2793.4	2796.0	2793.4
37.5°	2676.6	2663.9	2686.8	2671.5	2719.8
40°	2547.1	2547.1	2557.3	2582.7	2620.8
42.5°	2427.8	2437.9	2425.2	2496.3	2511.6
45°	2293.2	2310.9	2290.6	2384.6	2361.7
47.5°	2171.3	2178.9	2173.8	2237.3	2242.4
50°	2039.2	2049.4	2054.4	2110.3	2117.9
52.5°	1930.0	1927.5	1909.7	1991.0	2003.7
55°	1800.5	1798.0	1792.9	1856.4	1874.1
57.5°	1668.4	1671.0	1683.7	1719.2	1762.4
60°	1549.1	1536.4	1546.5	1589.7	1625.3
62.5°	1427.2	1404.3	1381.5	1452.6	1485.6
65°	1292.6	1264.7	1252.0	1310.4	1366.2
67.5°	1168.2	1122.5	1114.8	1155.5	1221.5
70°	1026.0	970.1	967.5	998.0	1076.7
72.5°	868.5	820.3	807.6	848.2	919.3
75°	718.7	665.3	650.1	688.2	754.2
77.5°	556.1	513.0	502.8	523.1	576.5
80°	391.1	365.7	355.5	363.1	401.2
82.5°	246.3	228.6	223.5	220.9	241.3
85°	124.4	111.7	111.7	104.1	109.2
87.5°	38.1	35.6	33.0	25.4	27.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)