

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: P485801

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5STD-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: P485801
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-LD4-5STD-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

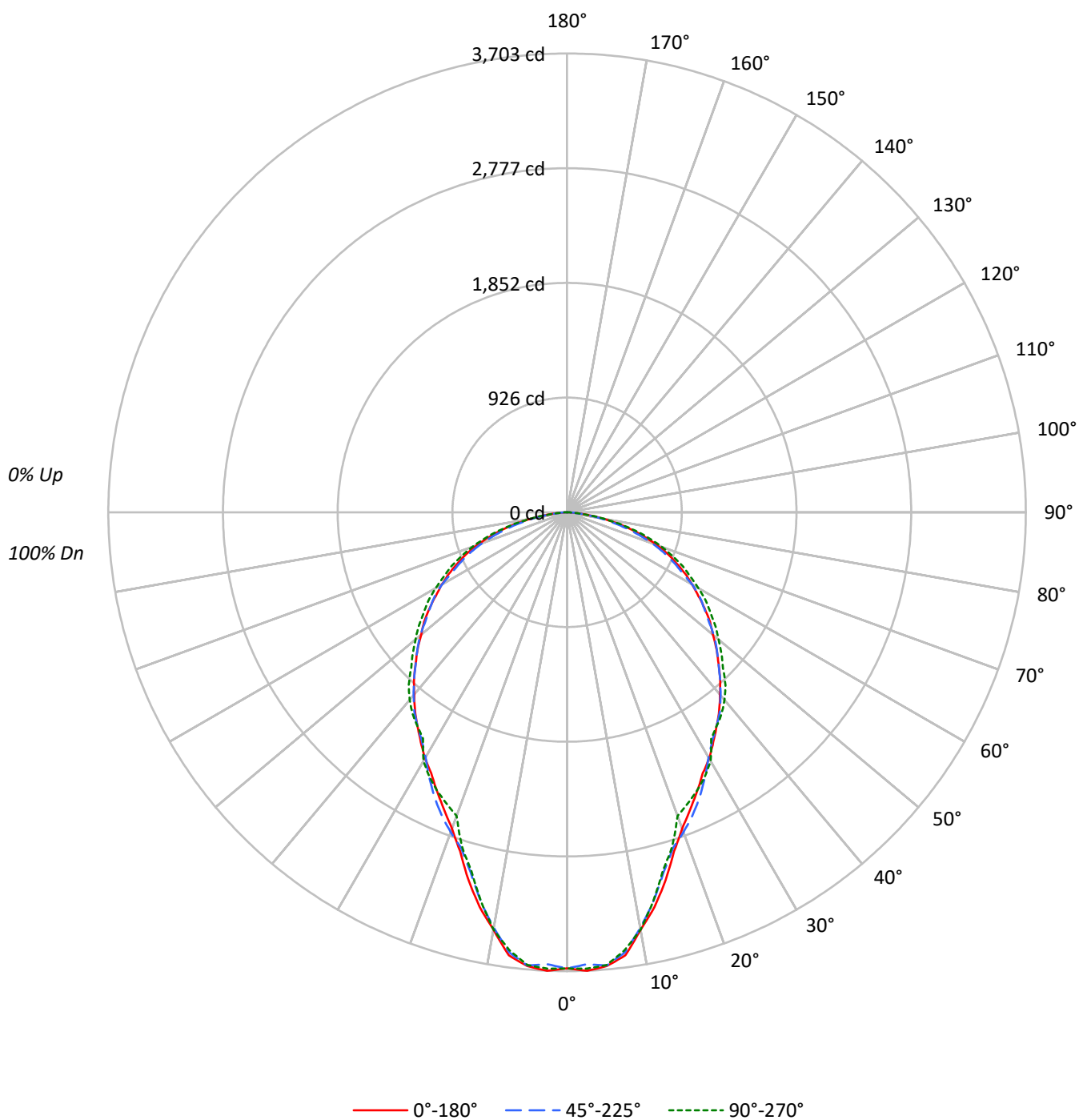
Lumens per Lamp: N/A
Luminaire Lumens: 7870.7 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 83.2
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-LD4-5STD-35-120-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°	9904	9904	9904
5°	9931	9916	9905
10°	9345	9303	9340
15°	8563	8376	8328
20°	7777	7865	7464
25°	7376	7524	7364
30°	7124	7095	7201
35°	6916	6916	6916
40°	6743	6770	6938
45°	6577	6570	6774
50°	6434	6482	6682
55°	6366	6339	6626
60°	6283	6273	6592
65°	6202	6008	6556
70°	6083	5737	6385
75°	5631	5094	5910
80°	4567	4152	4686
85°	2896	2600	2541



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.8	4.3
10°-20°	854.6	10.9
20°-30°	1154.1	14.7
30°-40°	1321.6	16.8
40°-50°	1353.7	17.2
50°-60°	1228.3	15.6
60°-70°	958.7	12.2
70°-80°	543.7	6.9
80°-90°	114.1	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°	2350.5	29.9
0°-40°	3672.1	46.7
0°-60°	6254.2	79.5
0°-90°	7870.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7870.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3680	3680	3680	3680	3680	
5°	3676	3634	3671	3678	3667	343
15°	3074	3083	3007	3022	2989	859
25°	2484	2517	2534	2473	2480	1146
35°	2105	2109	2105	2107	2105	1319
45°	1728	1742	1726	1797	1780	1336
55°	1357	1355	1351	1399	1412	1213
65°	974	953	944	988	1030	965
75°	542	501	490	519	568	567
85°	94	84	84	78	82	124
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3680.3	3680.3	3680.3	3680.3	3680.3
2.5°	3703.2	3674.5	3649.7	3689.8	3686.0
5°	3676.4	3634.3	3670.7	3678.4	3666.9
7.5°	3605.6	3578.8	3580.8	3565.4	3563.5
10°	3420.0	3435.3	3404.7	3431.5	3418.1
12.5°	3261.1	3270.7	3217.1	3228.6	3213.3
15°	3073.6	3083.2	3006.6	3021.9	2989.4
17.5°	2868.8	2903.3	2840.1	2859.2	2824.8
20°	2715.7	2744.4	2746.3	2715.7	2606.6
22.5°	2595.1	2623.8	2646.8	2554.9	2543.5
25°	2484.1	2516.7	2533.9	2472.7	2480.3
27.5°	2373.1	2409.5	2409.5	2422.9	2405.7
30°	2292.8	2308.1	2283.2	2332.9	2317.6
32.5°	2197.1	2202.8	2181.8	2218.1	2164.5
35°	2105.2	2109.0	2105.2	2107.1	2105.2
37.5°	2017.2	2007.6	2024.8	2013.3	2049.7
40°	1919.6	1919.6	1927.2	1946.4	1975.1
42.5°	1829.6	1837.3	1827.7	1881.3	1892.8
45°	1728.2	1741.6	1726.3	1797.1	1779.9
47.5°	1636.3	1642.1	1638.2	1686.1	1689.9
50°	1536.8	1544.5	1548.3	1590.4	1596.1
52.5°	1454.5	1452.6	1439.2	1500.4	1510.0
55°	1356.9	1355.0	1351.2	1399.0	1412.4
57.5°	1257.4	1259.3	1268.9	1295.7	1328.2
60°	1167.4	1157.9	1165.5	1198.1	1224.8
62.5°	1075.6	1058.3	1041.1	1094.7	1119.6
65°	974.1	953.1	943.5	987.5	1029.6
67.5°	880.4	845.9	840.2	870.8	920.5
70°	773.2	731.1	729.2	752.1	811.5
72.5°	654.5	618.2	608.6	639.2	692.8
75°	541.6	501.4	489.9	518.6	568.4
77.5°	419.1	386.6	378.9	394.2	434.4
80°	294.7	275.6	267.9	273.7	302.4
82.5°	185.6	172.2	168.4	166.5	181.8
85°	93.8	84.2	84.2	78.5	82.3
87.5°	28.7	26.8	24.9	19.1	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)