

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: P485714

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3LO-30-120-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: P485714
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-LD4-3LO-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

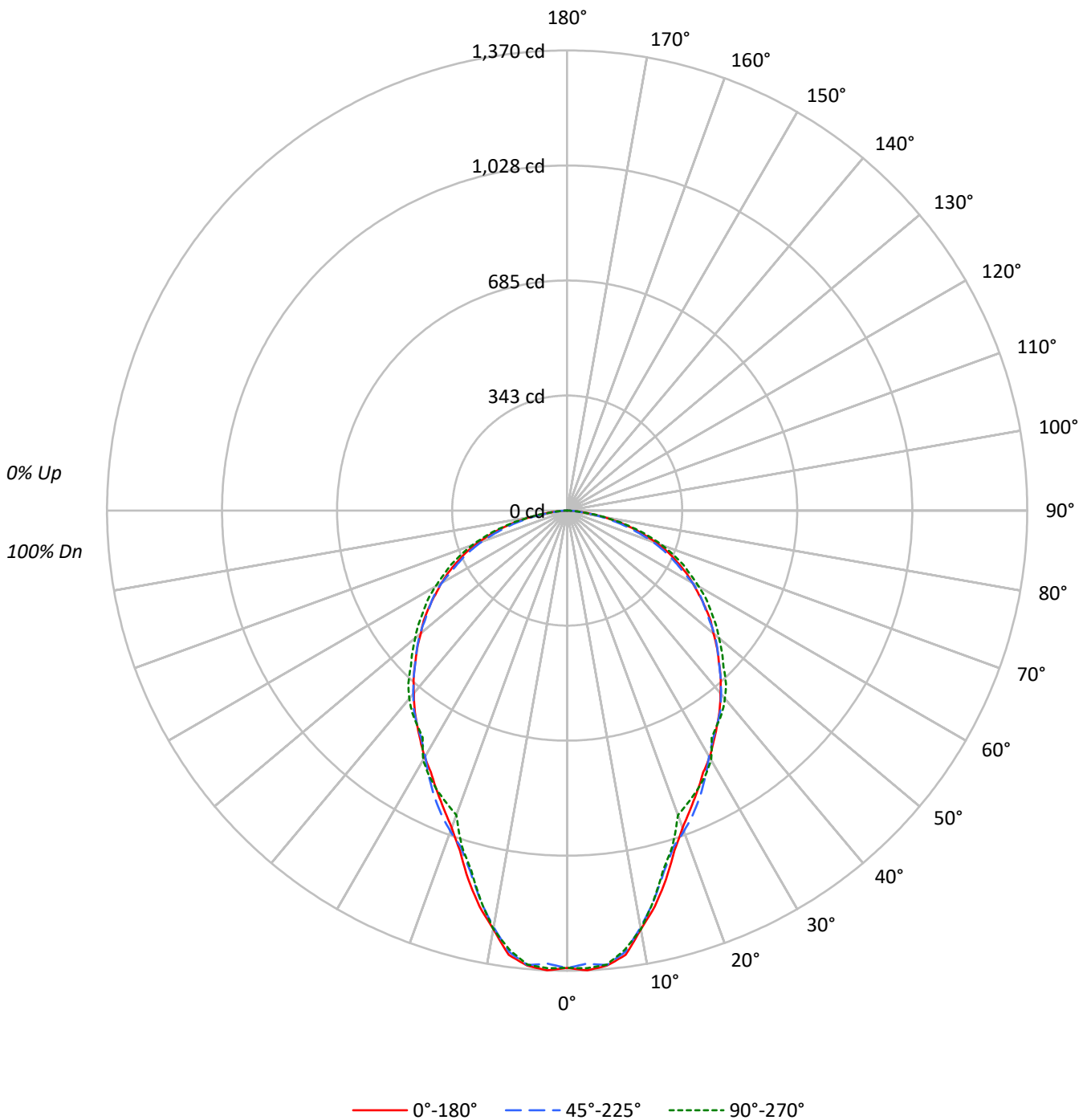
Lumens per Lamp: N/A
Luminaire Lumens: 2911.8 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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-LD4-3LO-30-120-EDD-90

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°	3664	3664	3664
5°	3674	3668	3665
10°	3457	3442	3455
15°	3168	3099	3081
20°	2877	2909	2761
25°	2729	2783	2725
30°	2636	2625	2664
35°	2558	2558	2558
40°	2494	2505	2567
45°	2433	2430	2506
50°	2380	2398	2472
55°	2355	2345	2451
60°	2324	2321	2439
65°	2295	2223	2425
70°	2250	2123	2362
75°	2084	1885	2187
80°	1689	1536	1734
85°	1071	963	939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.5	4.3
10°-20°	316.1	10.9
20°-30°	427.0	14.7
30°-40°	488.9	16.8
40°-50°	500.8	17.2
50°-60°	454.4	15.6
60°-70°	354.7	12.2
70°-80°	201.2	6.9
80°-90°	42.2	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°	869.6	29.9
0°-40°	1358.5	46.7
0°-60°	2313.7	79.5
0°-90°	2911.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2911.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1362	1362	1362	1362	1362	
5°	1360	1344	1358	1361	1357	127
15°	1137	1141	1112	1118	1106	318
25°	919	931	937	915	918	424
35°	779	780	779	780	779	488
45°	639	644	639	665	658	494
55°	502	501	500	518	522	449
65°	360	353	349	365	381	357
75°	200	186	181	192	210	210
85°	35	31	31	29	30	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1361.5	1361.5	1361.5	1361.5	1361.5
2.5°	1370.0	1359.4	1350.2	1365.1	1363.7
5°	1360.1	1344.5	1358.0	1360.8	1356.6
7.5°	1333.9	1324.0	1324.7	1319.1	1318.3
10°	1265.2	1270.9	1259.6	1269.5	1264.5
12.5°	1206.5	1210.0	1190.2	1194.4	1188.8
15°	1137.1	1140.6	1112.3	1118.0	1105.9
17.5°	1061.3	1074.1	1050.7	1057.8	1045.0
20°	1004.7	1015.3	1016.0	1004.7	964.3
22.5°	960.1	970.7	979.2	945.2	941.0
25°	919.0	931.1	937.4	914.8	917.6
27.5°	878.0	891.4	891.4	896.4	890.0
30°	848.2	853.9	844.7	863.1	857.4
32.5°	812.8	814.9	807.1	820.6	800.8
35°	778.8	780.2	778.8	779.5	778.8
37.5°	746.3	742.7	749.1	744.8	758.3
40°	710.1	710.1	713.0	720.1	730.7
42.5°	676.9	679.7	676.2	696.0	700.2
45°	639.3	644.3	638.6	664.8	658.5
47.5°	605.4	607.5	606.1	623.8	625.2
50°	568.5	571.4	572.8	588.4	590.5
52.5°	538.1	537.4	532.4	555.1	558.6
55°	502.0	501.3	499.9	517.6	522.5
57.5°	465.2	465.9	469.4	479.3	491.4
60°	431.9	428.4	431.2	443.2	453.1
62.5°	397.9	391.5	385.2	405.0	414.2
65°	360.4	352.6	349.1	365.3	380.9
67.5°	325.7	312.9	310.8	322.2	340.6
70°	286.0	270.5	269.8	278.3	300.2
72.5°	242.1	228.7	225.2	236.5	256.3
75°	200.4	185.5	181.3	191.9	210.3
77.5°	155.1	143.0	140.2	145.9	160.7
80°	109.0	102.0	99.1	101.2	111.9
82.5°	68.7	63.7	62.3	61.6	67.3
85°	34.7	31.2	31.2	29.0	30.4
87.5°	10.6	9.9	9.2	7.1	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)