

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: P485800

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5STD-35-120-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: P485800
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-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

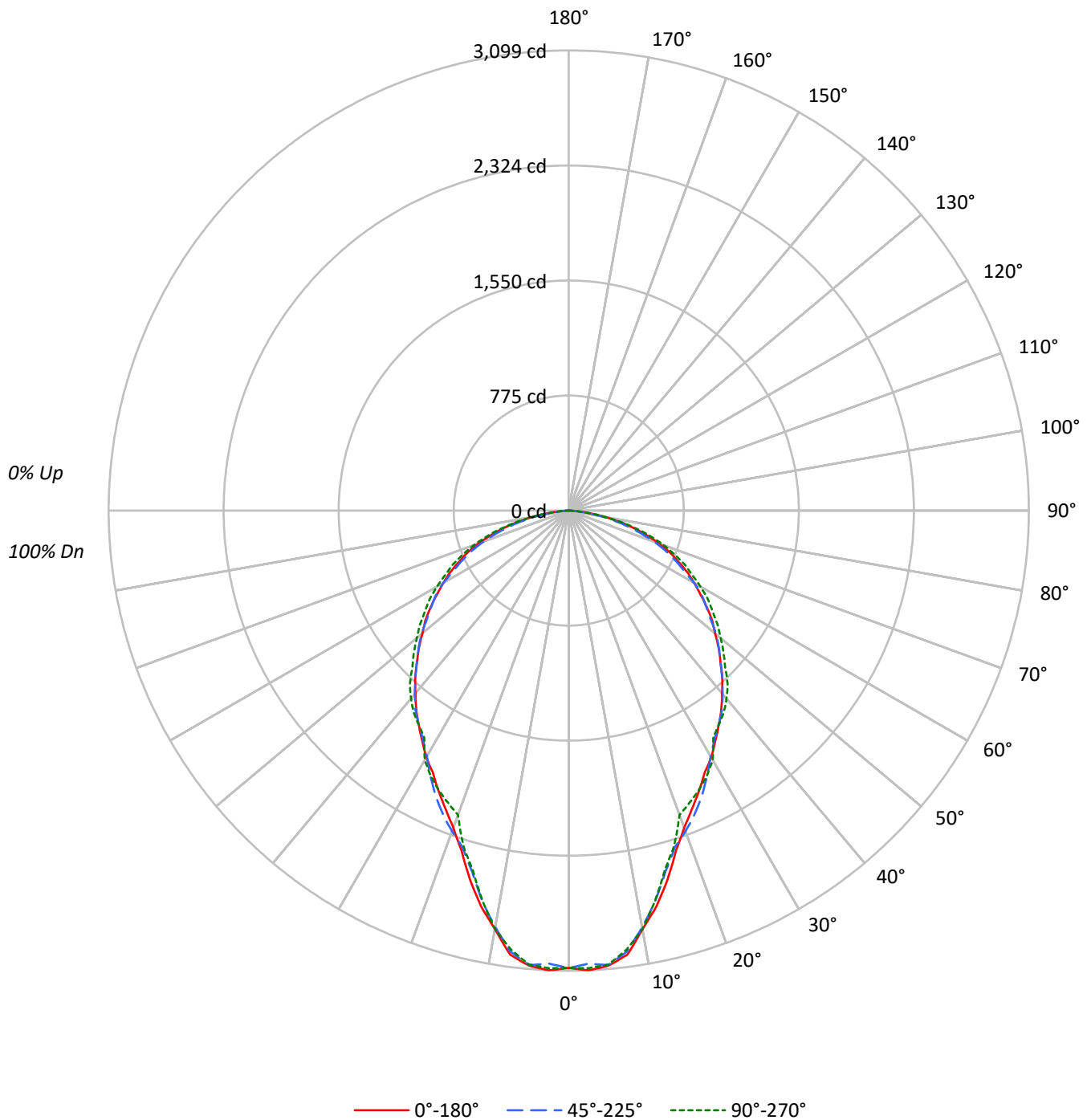
Lumens per Lamp: N/A
Luminaire Lumens: 6585.8 lumens
Efficiency: N/A
Efficacy: 79.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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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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°	8287	8287	8287
5°	8310	8297	8288
10°	7820	7785	7815
15°	7165	7009	6969
20°	6507	6581	6246
25°	6172	6295	6162
30°	5961	5936	6026
35°	5787	5787	5787
40°	5642	5665	5805
45°	5503	5497	5668
50°	5383	5424	5591
55°	5327	5304	5545
60°	5257	5248	5516
65°	5190	5027	5486
70°	5091	4800	5342
75°	4712	4263	4945
80°	3821	3474	3921
85°	2424	2177	2127



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.0	4.3
10°-20°	715.1	10.9
20°-30°	965.7	14.7
30°-40°	1105.8	16.8
40°-50°	1132.7	17.2
50°-60°	1027.8	15.6
60°-70°	802.2	12.2
70°-80°	455.0	6.9
80°-90°	95.5	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°	1966.8	29.9
0°-40°	3072.6	46.7
0°-60°	5233.2	79.5
0°-90°	6585.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6585.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3080	3080	3080	3080	3080	
5°	3076	3041	3072	3078	3068	287
15°	2572	2580	2516	2529	2501	719
25°	2079	2106	2120	2069	2075	959
35°	1762	1765	1762	1763	1762	1103
45°	1446	1457	1444	1504	1489	1118
55°	1135	1134	1131	1171	1182	1015
65°	815	798	790	826	862	808
75°	453	420	410	434	476	474
85°	78	70	70	66	69	104
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3079.5	3079.5	3079.5	3079.5	3079.5
2.5°	3098.7	3074.7	3053.8	3087.5	3084.3
5°	3076.3	3041.0	3071.5	3077.9	3068.3
7.5°	3017.0	2994.6	2996.2	2983.4	2981.8
10°	2861.7	2874.5	2848.9	2871.3	2860.1
12.5°	2728.8	2736.8	2691.9	2701.5	2688.7
15°	2571.8	2579.8	2515.8	2528.6	2501.4
17.5°	2400.5	2429.3	2376.5	2392.5	2363.6
20°	2272.4	2296.4	2298.0	2272.4	2181.1
22.5°	2171.5	2195.5	2214.7	2137.9	2128.2
25°	2078.6	2105.8	2120.2	2069.0	2075.4
27.5°	1985.7	2016.1	2016.1	2027.4	2012.9
30°	1918.5	1931.3	1910.5	1952.1	1939.3
32.5°	1838.4	1843.2	1825.6	1856.0	1811.2
35°	1761.5	1764.7	1761.5	1763.1	1761.5
37.5°	1687.9	1679.9	1694.3	1684.7	1715.1
40°	1606.2	1606.2	1612.6	1628.6	1652.6
42.5°	1530.9	1537.3	1529.3	1574.2	1583.8
45°	1446.1	1457.3	1444.5	1503.7	1489.3
47.5°	1369.2	1374.0	1370.8	1410.8	1414.0
50°	1285.9	1292.3	1295.5	1330.8	1335.6
52.5°	1217.1	1215.5	1204.2	1255.5	1263.5
55°	1135.4	1133.8	1130.6	1170.6	1181.8
57.5°	1052.1	1053.7	1061.7	1084.1	1111.4
60°	976.8	968.8	975.2	1002.5	1024.9
62.5°	900.0	885.6	871.2	916.0	936.8
65°	815.1	797.5	789.5	826.3	861.5
67.5°	736.6	707.8	703.0	728.6	770.3
70°	647.0	611.7	610.1	629.3	679.0
72.5°	547.7	517.2	509.2	534.9	579.7
75°	453.2	419.6	410.0	434.0	475.6
77.5°	350.7	323.5	317.1	329.9	363.5
80°	246.6	230.6	224.2	229.0	253.0
82.5°	155.3	144.1	140.9	139.3	152.1
85°	78.5	70.5	70.5	65.7	68.9
87.5°	24.0	22.4	20.8	16.0	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)