

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: P485068

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3LO-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: P485068
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-12-4-INS-89BC-LD4-3LO-35-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

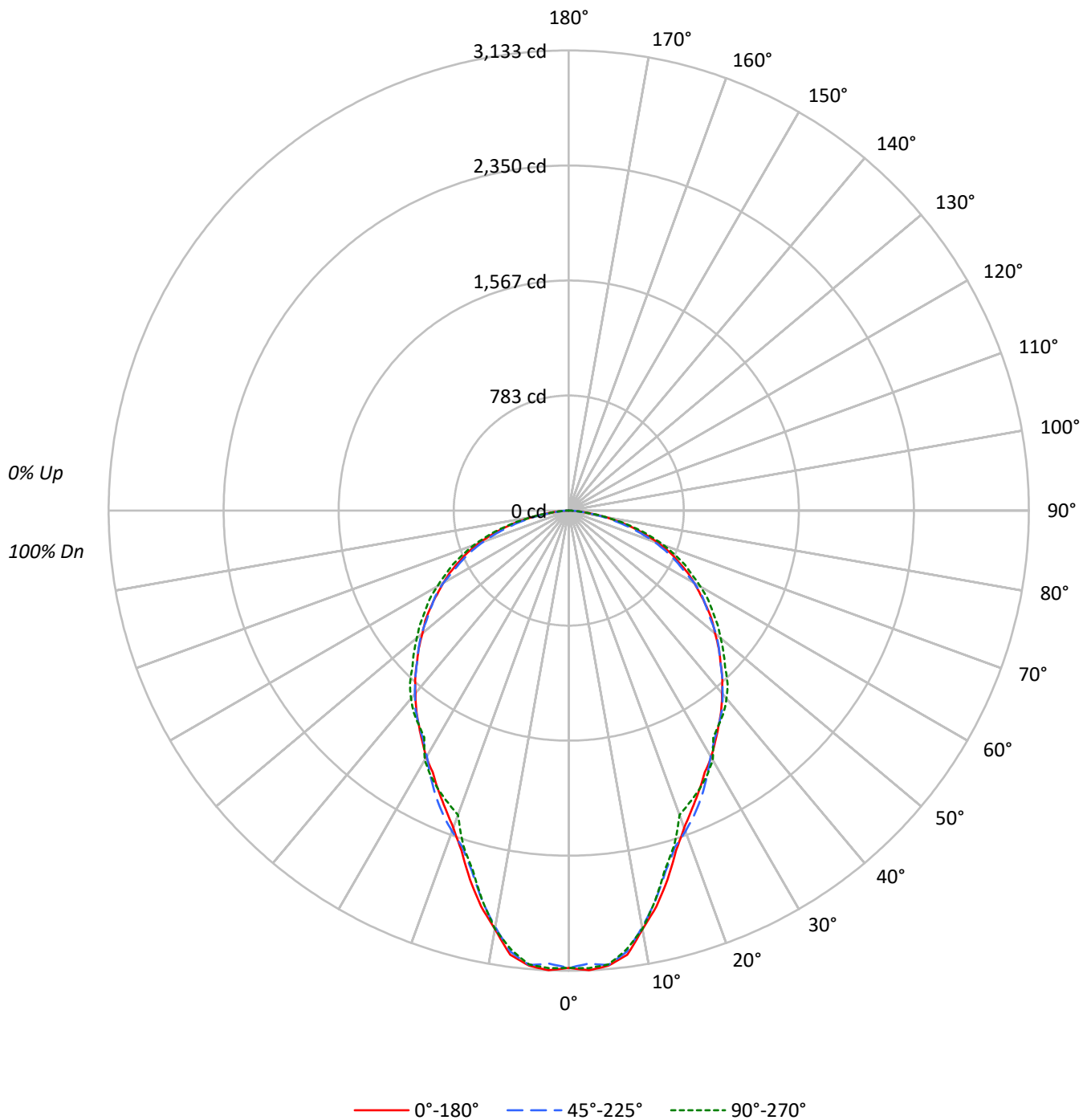
Lumens per Lamp: N/A
Luminaire Lumens: 6657.9 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		84
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		70
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		60
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		51
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		39
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		35
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		31
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		28
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8378	8378	8378
5°	8401	8388	8379
10°	7905	7870	7901
15°	7243	7085	7045
20°	6578	6653	6314
25°	6239	6364	6230
30°	6027	6001	6092
35°	5850	5850	5850
40°	5704	5727	5869
45°	5563	5557	5730
50°	5442	5483	5653
55°	5385	5362	5605
60°	5315	5306	5576
65°	5247	5082	5546
70°	5146	4853	5401
75°	4764	4309	4999
80°	3863	3512	3964
85°	2448	2198	2149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.1	4.3
10°-20°	722.9	10.9
20°-30°	976.3	14.7
30°-40°	1117.9	16.8
40°-50°	1145.1	17.2
50°-60°	1039.0	15.6
60°-70°	811.0	12.2
70°-80°	459.9	6.9
80°-90°	96.5	1.4
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°	1988.3	29.9
0°-40°	3106.2	46.7
0°-60°	5290.4	79.5
0°-90°	6657.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6657.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3113	3113	3113	3113	3113	
5°	3110	3074	3105	3112	3102	290
15°	2600	2608	2543	2556	2529	727
25°	2101	2129	2143	2092	2098	970
35°	1781	1784	1781	1782	1781	1116
45°	1462	1473	1460	1520	1506	1130
55°	1148	1146	1143	1183	1195	1026
65°	824	806	798	835	871	817
75°	458	424	414	439	481	479
85°	79	71	71	66	70	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3113.2	3113.2	3113.2	3113.2	3113.2
2.5°	3132.6	3108.3	3087.3	3121.3	3118.0
5°	3109.9	3074.3	3105.1	3111.6	3101.8
7.5°	3050.0	3027.4	3029.0	3016.0	3014.4
10°	2893.0	2906.0	2880.1	2902.7	2891.4
12.5°	2758.6	2766.7	2721.4	2731.1	2718.2
15°	2600.0	2608.1	2543.3	2556.3	2528.7
17.5°	2426.8	2455.9	2402.5	2418.7	2389.5
20°	2297.2	2321.5	2323.1	2297.2	2205.0
22.5°	2195.3	2219.5	2239.0	2161.3	2151.5
25°	2101.4	2128.9	2143.4	2091.6	2098.1
27.5°	2007.5	2038.2	2038.2	2049.6	2035.0
30°	1939.5	1952.4	1931.4	1973.5	1960.5
32.5°	1858.5	1863.4	1845.6	1876.3	1831.0
35°	1780.8	1784.0	1780.8	1782.4	1780.8
37.5°	1706.3	1698.2	1712.8	1703.1	1733.9
40°	1623.8	1623.8	1630.3	1646.4	1670.7
42.5°	1547.7	1554.2	1546.1	1591.4	1601.1
45°	1461.9	1473.2	1460.3	1520.2	1505.6
47.5°	1384.2	1389.0	1385.8	1426.3	1429.5
50°	1300.0	1306.5	1309.7	1345.3	1350.2
52.5°	1230.4	1228.8	1217.4	1269.2	1277.3
55°	1147.8	1146.2	1143.0	1183.4	1194.8
57.5°	1063.6	1065.2	1073.3	1096.0	1123.5
60°	987.5	979.4	985.9	1013.4	1036.1
62.5°	909.8	895.3	880.7	926.0	947.1
65°	824.0	806.2	798.1	835.4	871.0
67.5°	744.7	715.6	710.7	736.6	778.7
70°	654.0	618.4	616.8	636.2	686.4
72.5°	553.7	522.9	514.8	540.7	586.0
75°	458.2	424.2	414.4	438.7	480.8
77.5°	354.5	327.0	320.5	333.5	367.5
80°	249.3	233.1	226.6	231.5	255.8
82.5°	157.0	145.7	142.5	140.8	153.8
85°	79.3	71.2	71.2	66.4	69.6
87.5°	24.3	22.7	21.0	16.2	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)