

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: P485045

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2STD-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: P485045
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-LD4-2STD-35-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

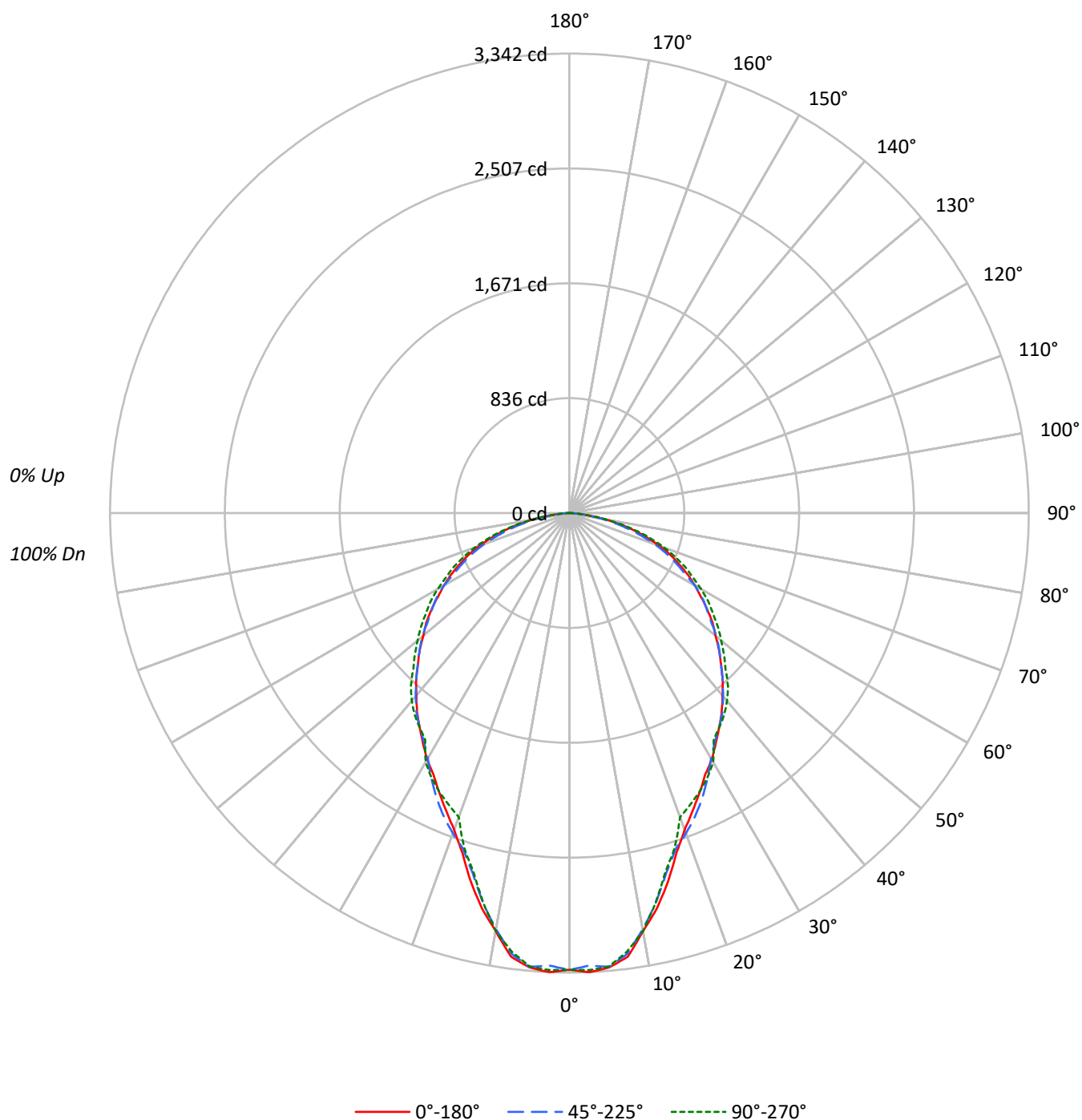
Lumens per Lamp: N/A
Luminaire Lumens: 7103.7 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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-12-4-INS-89BC-LD4-2STD-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°	8938	8938	8938
5°	8963	8949	8940
10°	8434	8397	8430
15°	7728	7560	7517
20°	7019	7098	6737
25°	6657	6790	6647
30°	6430	6403	6500
35°	6242	6242	6242
40°	6086	6110	6262
45°	5936	5929	6113
50°	5807	5850	6031
55°	5746	5721	5981
60°	5671	5661	5950
65°	5598	5422	5917
70°	5490	5178	5762
75°	5082	4598	5334
80°	4122	3747	4229
85°	2612	2347	2294



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.5	4.3
10°-20°	771.3	10.9
20°-30°	1041.6	14.7
30°-40°	1192.8	16.8
40°-50°	1221.8	17.2
50°-60°	1108.6	15.6
60°-70°	865.3	12.2
70°-80°	490.7	6.9
80°-90°	103.0	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°	2121.4	29.9
0°-40°	3314.2	46.7
0°-60°	5644.7	79.5
0°-90°	7103.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7103.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3322	3322	3322	3322	3322	
5°	3318	3280	3313	3320	3310	310
15°	2774	2783	2714	2727	2698	775
25°	2242	2271	2287	2232	2239	1035
35°	1900	1904	1900	1902	1900	1190
45°	1560	1572	1558	1622	1606	1206
55°	1225	1223	1220	1263	1275	1094
65°	879	860	852	891	929	871
75°	489	453	442	468	513	511
85°	85	76	76	71	74	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3321.6	3321.6	3321.6	3321.6	3321.6
2.5°	3342.4	3316.4	3294.0	3330.3	3326.8
5°	3318.2	3280.2	3313.0	3319.9	3309.5
7.5°	3254.3	3230.1	3231.8	3218.0	3216.3
10°	3086.7	3100.5	3072.9	3097.1	3085.0
12.5°	2943.3	2952.0	2903.6	2914.0	2900.2
15°	2774.1	2782.7	2713.6	2727.4	2698.1
17.5°	2589.2	2620.3	2563.3	2580.6	2549.5
20°	2451.1	2477.0	2478.7	2451.1	2352.6
22.5°	2342.2	2368.2	2388.9	2306.0	2295.6
25°	2242.1	2271.4	2287.0	2231.7	2238.6
27.5°	2141.9	2174.7	2174.7	2186.8	2171.2
30°	2069.3	2083.1	2060.7	2105.6	2091.8
32.5°	1983.0	1988.1	1969.1	2002.0	1953.6
35°	1900.0	1903.5	1900.0	1901.8	1900.0
37.5°	1820.6	1812.0	1827.5	1817.1	1850.0
40°	1732.5	1732.5	1739.4	1756.7	1782.6
42.5°	1651.3	1658.2	1649.6	1698.0	1708.3
45°	1559.8	1571.9	1558.0	1622.0	1606.4
47.5°	1476.9	1482.0	1478.6	1521.8	1525.2
50°	1387.0	1393.9	1397.4	1435.4	1440.6
52.5°	1312.8	1311.0	1298.9	1354.2	1362.9
55°	1224.7	1222.9	1219.5	1262.7	1274.8
57.5°	1134.8	1136.6	1145.2	1169.4	1198.8
60°	1053.7	1045.0	1051.9	1081.3	1105.5
62.5°	970.8	955.2	939.7	988.0	1010.5
65°	879.2	860.2	851.6	891.3	929.3
67.5°	794.6	763.5	758.3	785.9	830.8
70°	697.8	659.8	658.1	678.8	732.4
72.5°	590.7	557.9	549.3	576.9	625.3
75°	488.8	452.6	442.2	468.1	513.0
77.5°	378.3	348.9	342.0	355.8	392.1
80°	266.0	248.7	241.8	247.0	272.9
82.5°	167.5	155.5	152.0	150.3	164.1
85°	84.6	76.0	76.0	70.8	74.3
87.5°	25.9	24.2	22.5	17.3	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)