

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: P485020

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2HI-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: P485020
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-LD4-2HI-35-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

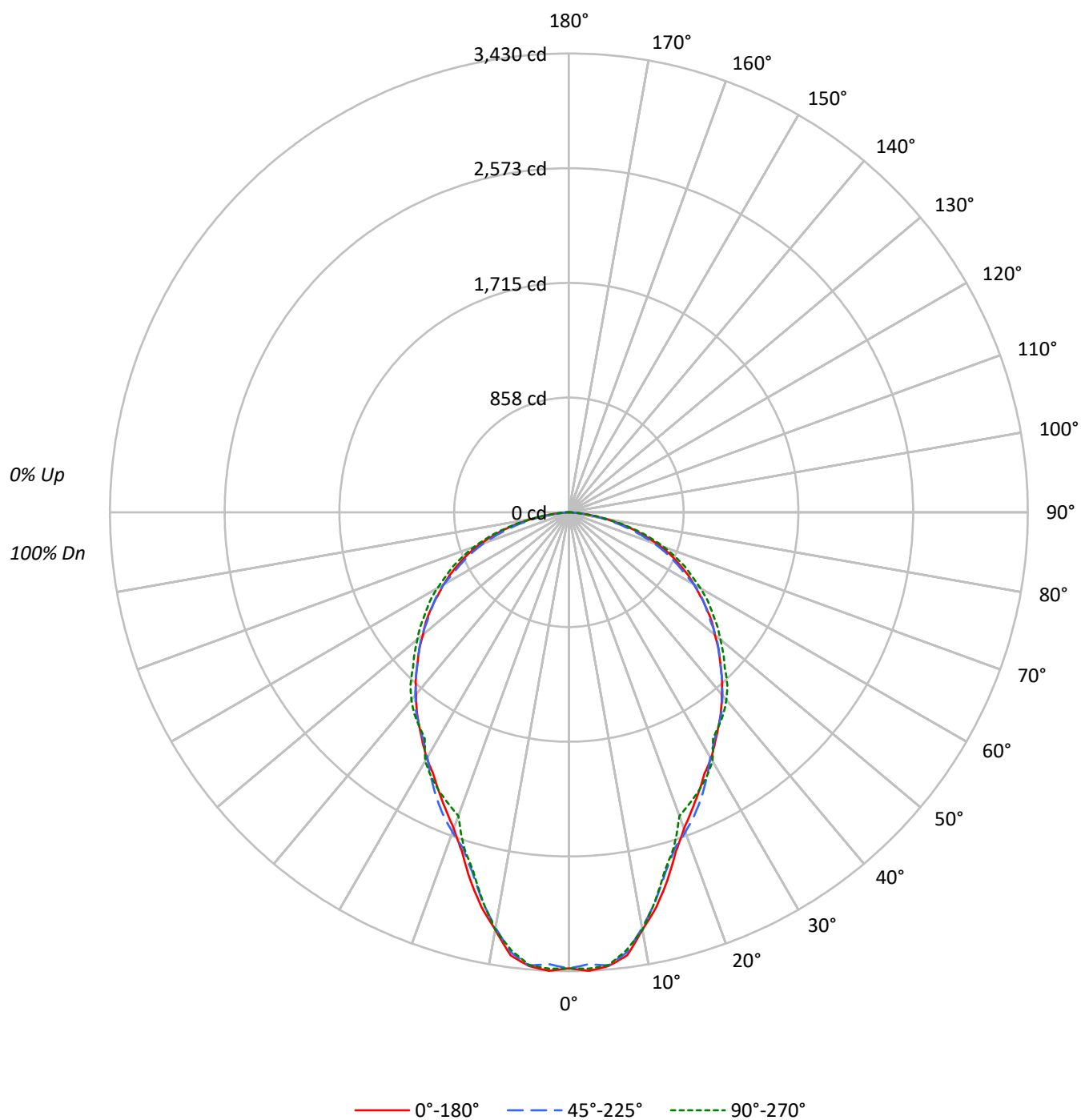
Lumens per Lamp: N/A
Luminaire Lumens: 7290.8 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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°	9174	9174	9174
5°	9199	9185	9175
10°	8657	8618	8652
15°	7932	7759	7714
20°	7204	7285	6915
25°	6832	6969	6822
30°	6599	6572	6671
35°	6406	6406	6406
40°	6246	6271	6427
45°	6092	6086	6274
50°	5960	6004	6190
55°	5897	5872	6138
60°	5820	5810	6106
65°	5746	5565	6073
70°	5635	5314	5914
75°	5216	4718	5474
80°	4231	3846	4341
85°	2683	2408	2353



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.6	4.3
10°-20°	791.6	10.9
20°-30°	1069.1	14.7
30°-40°	1224.2	16.8
40°-50°	1254.0	17.2
50°-60°	1137.8	15.6
60°-70°	888.1	12.2
70°-80°	503.7	6.9
80°-90°	105.7	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°	2177.3	29.9
0°-40°	3401.5	46.7
0°-60°	5793.3	79.5
0°-90°	7290.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7290.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3409	3409	3409	3409	3409	
5°	3406	3367	3400	3407	3397	318
15°	2847	2856	2785	2799	2769	796
25°	2301	2331	2347	2290	2298	1062
35°	1950	1954	1950	1952	1950	1222
45°	1601	1613	1599	1665	1649	1238
55°	1257	1255	1252	1296	1308	1123
65°	902	883	874	915	954	894
75°	502	464	454	480	526	525
85°	87	78	78	73	76	115
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3409.1	3409.1	3409.1	3409.1	3409.1
2.5°	3430.4	3403.8	3380.8	3418.0	3414.4
5°	3405.6	3366.6	3400.3	3407.3	3396.7
7.5°	3340.0	3315.2	3316.9	3302.7	3301.0
10°	3168.0	3182.2	3153.8	3178.7	3166.2
12.5°	3020.9	3029.7	2980.1	2990.7	2976.6
15°	2847.1	2856.0	2785.1	2799.3	2769.1
17.5°	2657.4	2689.4	2630.9	2648.6	2616.7
20°	2515.6	2542.2	2544.0	2515.6	2414.6
22.5°	2403.9	2430.5	2451.8	2366.7	2356.1
25°	2301.1	2331.2	2347.2	2290.5	2297.6
27.5°	2198.3	2232.0	2232.0	2244.4	2228.4
30°	2123.8	2138.0	2115.0	2161.1	2146.9
32.5°	2035.2	2040.5	2021.0	2054.7	2005.1
35°	1950.1	1953.6	1950.1	1951.9	1950.1
37.5°	1868.5	1859.7	1875.6	1865.0	1898.7
40°	1778.1	1778.1	1785.2	1803.0	1829.5
42.5°	1694.8	1701.9	1693.0	1742.7	1753.3
45°	1600.8	1613.3	1599.1	1664.7	1648.7
47.5°	1515.8	1521.1	1517.5	1561.8	1565.4
50°	1423.6	1430.7	1434.2	1473.2	1478.5
52.5°	1347.3	1345.6	1333.2	1389.9	1398.7
55°	1256.9	1255.2	1251.6	1295.9	1308.3
57.5°	1164.7	1166.5	1175.4	1200.2	1230.3
60°	1081.4	1072.6	1079.6	1109.8	1134.6
62.5°	996.3	980.4	964.4	1014.0	1037.1
65°	902.4	882.9	874.0	914.8	953.8
67.5°	815.5	783.6	778.3	806.6	852.7
70°	716.2	677.2	675.4	696.7	751.7
72.5°	606.3	572.6	563.8	592.1	641.8
75°	501.7	464.5	453.8	480.4	526.5
77.5°	388.2	358.1	351.0	365.2	402.4
80°	273.0	255.3	248.2	253.5	280.1
82.5°	172.0	159.6	156.0	154.2	168.4
85°	86.9	78.0	78.0	72.7	76.2
87.5°	26.6	24.8	23.0	17.7	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)