

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: P485076

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3STD-27-120-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: P485076
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-LD4-3STD-27-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

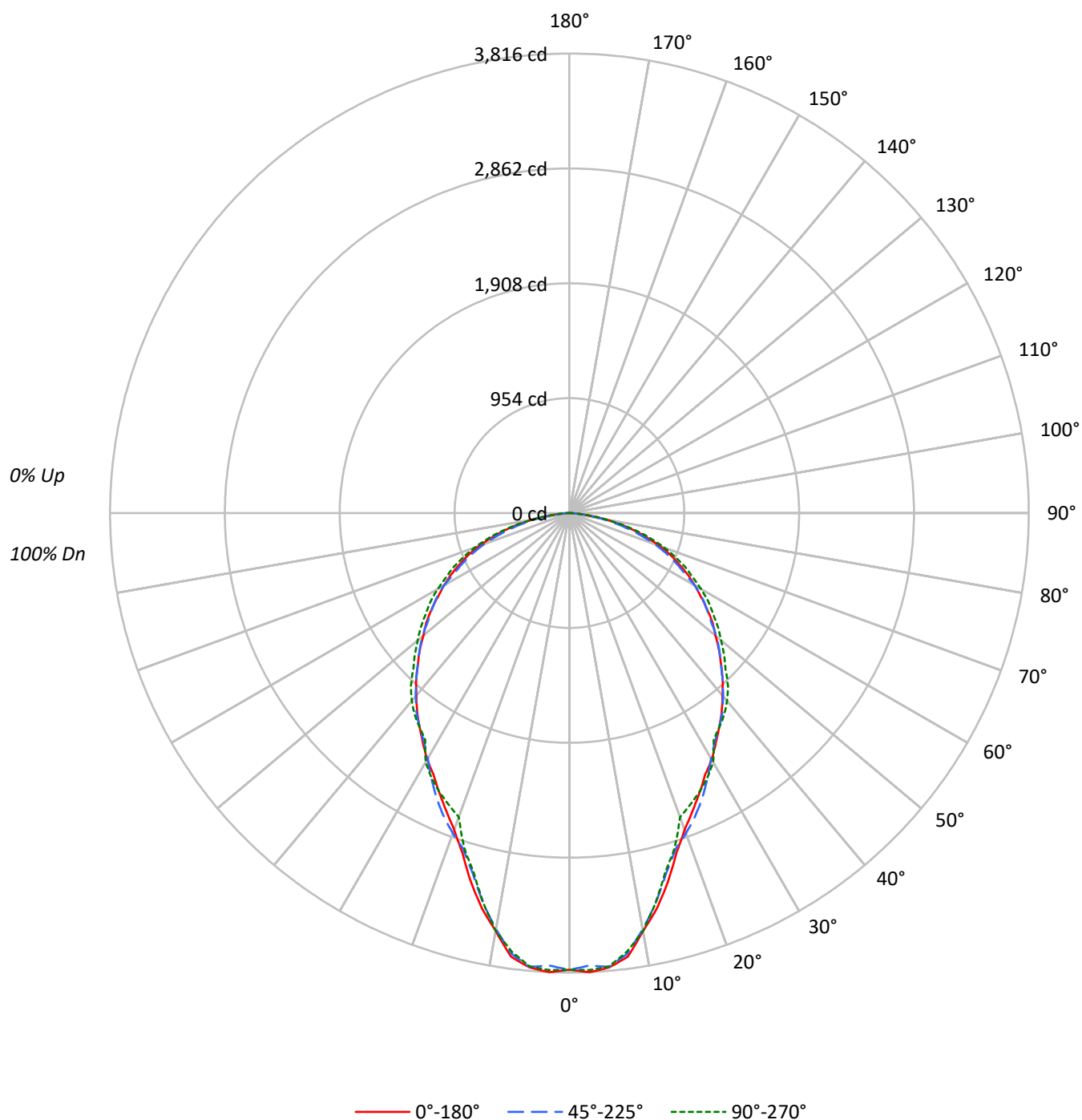
Lumens per Lamp: N/A
Luminaire Lumens: 8111.2 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	10206	10206	10206
5°	10235	10219	10208
10°	9631	9587	9625
15°	8824	8632	8583
20°	8015	8105	7693
25°	7601	7753	7589
30°	7342	7311	7422
35°	7127	7127	7127
40°	6949	6977	7150
45°	6778	6770	6980
50°	6630	6680	6886
55°	6561	6533	6829
60°	6475	6464	6794
65°	6392	6191	6756
70°	6269	5912	6580
75°	5804	5250	6091
80°	4706	4279	4829
85°	2983	2680	2618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	352.3	4.3
10°-20°	880.7	10.9
20°-30°	1189.3	14.7
30°-40°	1362.0	16.8
40°-50°	1395.1	17.2
50°-60°	1265.9	15.6
60°-70°	988.0	12.2
70°-80°	560.4	6.9
80°-90°	117.6	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°	2422.3	29.9
0°-40°	3784.3	46.7
0°-60°	6445.2	79.5
0°-90°	8111.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8111.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3793	3793	3793	3793	3793	
5°	3789	3745	3783	3791	3779	354
15°	3168	3177	3098	3114	3081	885
25°	2560	2594	2611	2548	2556	1181
35°	2170	2174	2170	2172	2170	1359
45°	1781	1795	1779	1852	1834	1377
55°	1398	1396	1392	1442	1456	1250
65°	1004	982	972	1018	1061	995
75°	558	517	505	534	586	584
85°	97	87	87	81	85	128
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3792.7	3792.7	3792.7	3792.7	3792.7
2.5°	3816.4	3786.8	3761.2	3802.6	3798.6
5°	3788.8	3745.4	3782.9	3790.8	3778.9
7.5°	3715.8	3688.2	3690.2	3674.4	3672.4
10°	3524.5	3540.3	3508.7	3536.3	3522.5
12.5°	3360.8	3370.7	3315.4	3327.3	3311.5
15°	3167.5	3177.4	3098.5	3114.3	3080.7
17.5°	2956.5	2992.0	2926.9	2946.6	2911.1
20°	2798.7	2828.3	2830.2	2798.7	2686.3
22.5°	2674.4	2704.0	2727.7	2633.0	2621.2
25°	2560.0	2593.6	2611.3	2548.2	2556.1
27.5°	2445.7	2483.1	2483.1	2496.9	2479.2
30°	2362.8	2378.6	2353.0	2404.2	2388.5
32.5°	2264.2	2270.1	2248.4	2285.9	2230.7
35°	2169.5	2173.5	2169.5	2171.5	2169.5
37.5°	2078.8	2068.9	2086.7	2074.9	2112.3
40°	1978.2	1978.2	1986.1	2005.8	2035.4
42.5°	1885.5	1893.4	1883.5	1938.8	1950.6
45°	1781.0	1794.8	1779.0	1852.0	1834.2
47.5°	1686.3	1692.2	1688.3	1737.6	1741.5
50°	1583.8	1591.6	1595.6	1639.0	1644.9
52.5°	1498.9	1497.0	1483.2	1546.3	1556.1
55°	1398.4	1396.4	1392.4	1441.8	1455.6
57.5°	1295.8	1297.8	1307.6	1335.2	1368.8
60°	1203.1	1193.2	1201.1	1234.7	1262.3
62.5°	1108.4	1090.7	1072.9	1128.2	1153.8
65°	1003.9	982.2	972.3	1017.7	1061.1
67.5°	907.3	871.8	865.8	897.4	948.7
70°	796.8	753.4	751.4	775.1	836.3
72.5°	674.5	637.1	627.2	658.7	714.0
75°	558.2	516.7	504.9	534.5	585.8
77.5°	431.9	398.4	390.5	406.3	447.7
80°	303.7	284.0	276.1	282.0	311.6
82.5°	191.3	177.5	173.6	171.6	187.4
85°	96.6	86.8	86.8	80.9	84.8
87.5°	29.6	27.6	25.6	19.7	21.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)