

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: P485069

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3LO-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: P485069
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
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

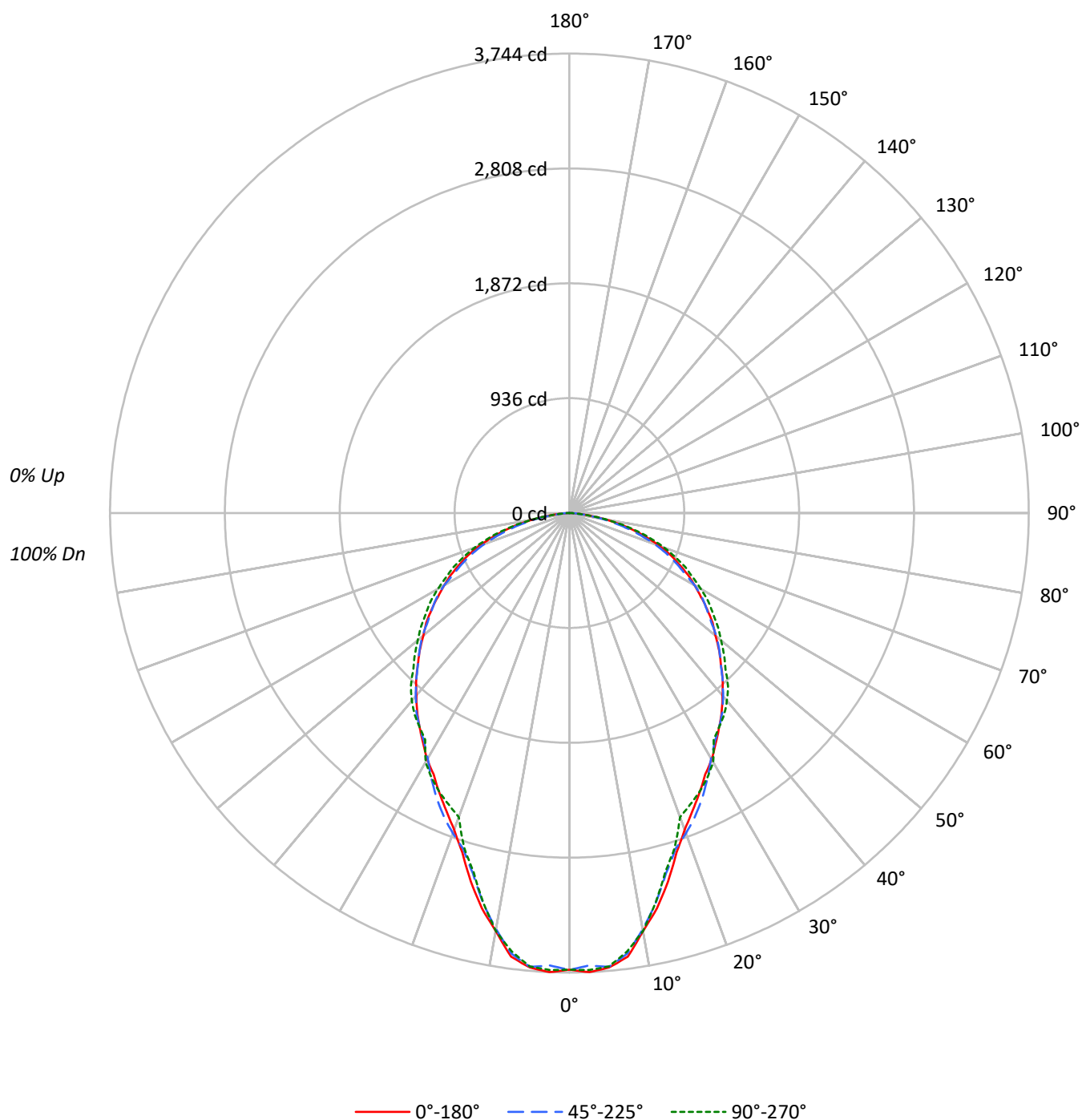
Lumens per Lamp: N/A
Luminaire Lumens: 7956.9 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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		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°	10012	10012	10012
5°	10040	10024	10014
10°	9448	9405	9442
15°	8657	8468	8419
20°	7862	7951	7546
25°	7456	7606	7445
30°	7202	7172	7280
35°	6992	6992	6992
40°	6817	6844	7014
45°	6649	6642	6847
50°	6504	6553	6755
55°	6436	6409	6699
60°	6352	6342	6664
65°	6271	6073	6628
70°	6150	5800	6454
75°	5692	5150	5974
80°	4618	4198	4737
85°	2927	2628	2569



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	345.6	4.3
10°-20°	863.9	10.9
20°-30°	1166.7	14.7
30°-40°	1336.1	16.8
40°-50°	1368.6	17.2
50°-60°	1241.8	15.6
60°-70°	969.2	12.2
70°-80°	549.7	6.9
80°-90°	115.4	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°	2376.2	29.9
0°-40°	3712.3	46.7
0°-60°	6322.6	79.5
0°-90°	7956.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7956.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3721	3721	3721	3721	3721	
5°	3717	3674	3711	3719	3707	347
15°	3107	3117	3040	3055	3022	868
25°	2511	2544	2562	2500	2508	1159
35°	2128	2132	2128	2130	2128	1333
45°	1747	1761	1745	1817	1799	1351
55°	1372	1370	1366	1414	1428	1226
65°	985	964	954	998	1041	976
75°	548	507	495	524	575	573
85°	95	85	85	79	83	125
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3720.6	3720.6	3720.6	3720.6	3720.6
2.5°	3743.8	3714.8	3689.6	3730.3	3726.4
5°	3716.7	3674.1	3710.9	3718.6	3707.0
7.5°	3645.1	3618.0	3620.0	3604.5	3602.6
10°	3457.5	3472.9	3442.0	3469.1	3455.5
12.5°	3296.9	3306.5	3252.4	3264.0	3248.5
15°	3107.3	3116.9	3039.5	3055.0	3022.1
17.5°	2900.2	2935.1	2871.2	2890.6	2855.7
20°	2745.5	2774.5	2776.4	2745.5	2635.2
22.5°	2623.6	2652.6	2675.8	2582.9	2571.3
25°	2511.3	2544.2	2561.6	2499.7	2507.5
27.5°	2399.1	2435.9	2435.9	2449.4	2432.0
30°	2317.9	2333.3	2308.2	2358.5	2343.0
32.5°	2221.1	2226.9	2205.6	2242.4	2188.2
35°	2128.3	2132.1	2128.3	2130.2	2128.3
37.5°	2039.3	2029.6	2047.0	2035.4	2072.1
40°	1940.6	1940.6	1948.3	1967.7	1996.7
42.5°	1849.6	1857.4	1847.7	1901.9	1913.5
45°	1747.1	1760.6	1745.2	1816.8	1799.3
47.5°	1654.2	1660.0	1656.2	1704.5	1708.4
50°	1553.6	1561.4	1565.2	1607.8	1613.6
52.5°	1470.4	1468.5	1455.0	1516.9	1526.5
55°	1371.8	1369.8	1366.0	1414.3	1427.9
57.5°	1271.2	1273.1	1282.8	1309.8	1342.7
60°	1180.2	1170.5	1178.3	1211.2	1238.3
62.5°	1087.3	1069.9	1052.5	1106.7	1131.8
65°	984.8	963.5	953.8	998.3	1040.9
67.5°	890.0	855.2	849.4	880.3	930.6
70°	781.7	739.1	737.2	760.4	820.3
72.5°	661.7	624.9	615.3	646.2	700.4
75°	547.5	506.9	495.3	524.3	574.6
77.5°	423.7	390.8	383.1	398.6	439.2
80°	298.0	278.6	270.9	276.7	305.7
82.5°	187.7	174.1	170.3	168.3	183.8
85°	94.8	85.1	85.1	79.3	83.2
87.5°	29.0	27.1	25.2	19.3	21.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)