

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: P485066

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-3LO-30-120-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: P485066
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-30-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

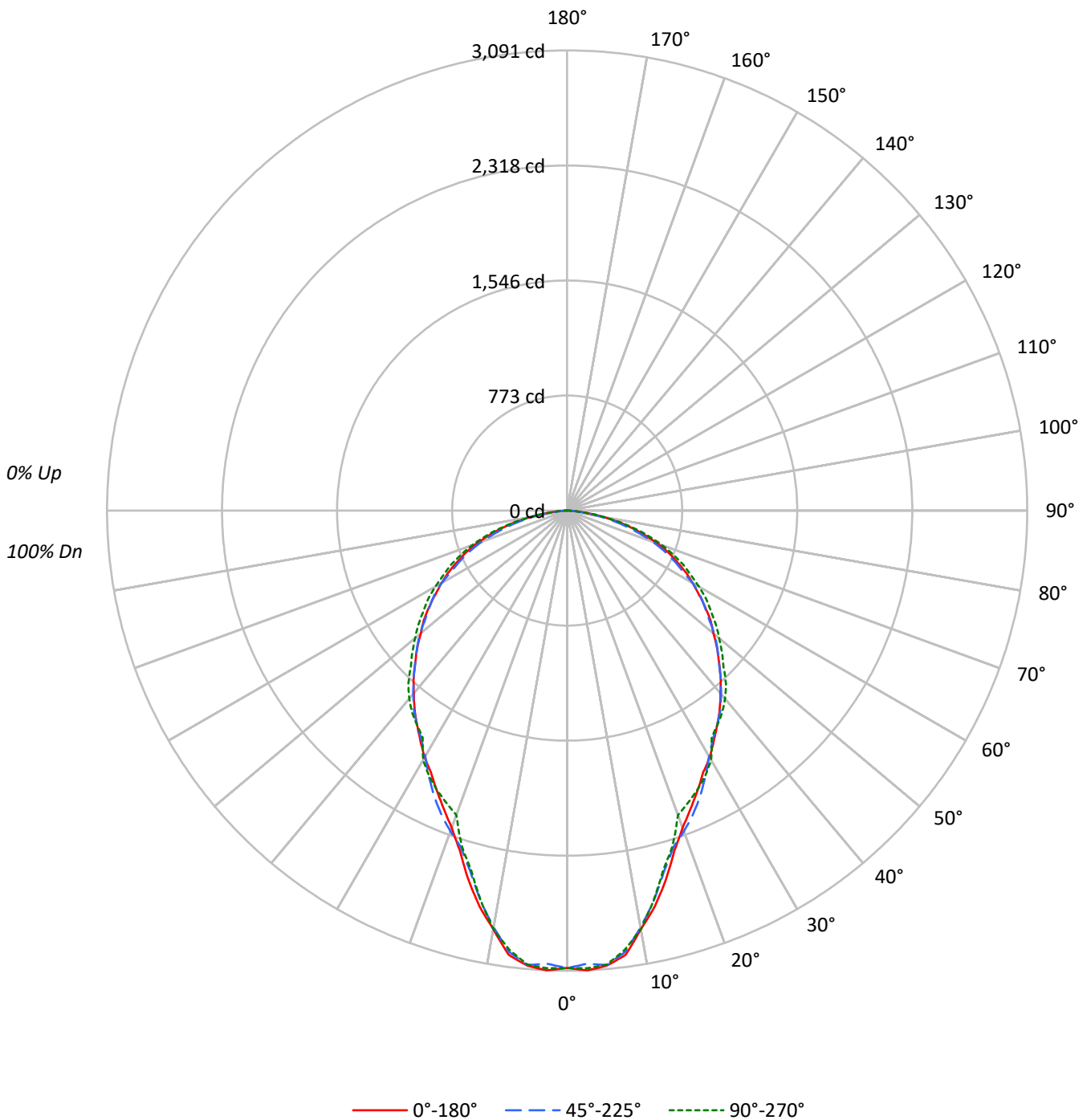
Lumens per Lamp: N/A
Luminaire Lumens: 6570.1 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8267	8267	8267
5°	8290	8277	8268
10°	7801	7766	7797
15°	7148	6992	6952
20°	6492	6565	6231
25°	6157	6280	6147
30°	5947	5922	6012
35°	5773	5773	5773
40°	5629	5651	5792
45°	5490	5484	5654
50°	5370	5411	5578
55°	5314	5292	5531
60°	5245	5236	5503
65°	5178	5015	5473
70°	5078	4789	5330
75°	4701	4252	4933
80°	3812	3467	3911
85°	2418	2171	2121



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.3	4.3
10°-20°	713.4	10.9
20°-30°	963.4	14.7
30°-40°	1103.2	16.8
40°-50°	1130.0	17.2
50°-60°	1025.4	15.6
60°-70°	800.3	12.2
70°-80°	453.9	6.9
80°-90°	95.3	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°	1962.1	29.9
0°-40°	3065.3	46.7
0°-60°	5220.7	79.5
0°-90°	6570.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6570.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3072	3072	3072	3072	3072	
5°	3069	3034	3064	3070	3061	287
15°	2566	2574	2510	2523	2495	717
25°	2074	2101	2115	2064	2070	957
35°	1757	1760	1757	1759	1757	1101
45°	1443	1454	1441	1500	1486	1115
55°	1133	1131	1128	1168	1179	1012
65°	813	796	788	824	860	806
75°	452	419	409	433	474	473
85°	78	70	70	66	69	103
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3072.1	3072.1	3072.1	3072.1	3072.1
2.5°	3091.3	3067.3	3046.6	3080.1	3076.9
5°	3068.9	3033.8	3064.1	3070.5	3060.9
7.5°	3009.8	2987.5	2989.1	2976.3	2974.7
10°	2854.9	2867.6	2842.1	2864.4	2853.3
12.5°	2722.3	2730.2	2685.5	2695.1	2682.3
15°	2565.7	2573.7	2509.8	2522.6	2495.4
17.5°	2394.8	2423.5	2370.8	2386.8	2358.0
20°	2267.0	2290.9	2292.5	2267.0	2175.9
22.5°	2166.3	2190.3	2209.4	2132.8	2123.2
25°	2073.6	2100.8	2115.2	2064.1	2070.4
27.5°	1981.0	2011.3	2011.3	2022.5	2008.1
30°	1913.9	1926.7	1905.9	1947.4	1934.7
32.5°	1834.0	1838.8	1821.2	1851.6	1806.9
35°	1757.3	1760.5	1757.3	1758.9	1757.3
37.5°	1683.8	1675.8	1690.2	1680.6	1711.0
40°	1602.4	1602.4	1608.8	1624.7	1648.7
42.5°	1527.3	1533.7	1525.7	1570.4	1580.0
45°	1442.6	1453.8	1441.0	1500.1	1485.7
47.5°	1365.9	1370.7	1367.5	1407.5	1410.7
50°	1282.8	1289.2	1292.4	1327.6	1332.4
52.5°	1214.2	1212.6	1201.4	1252.5	1260.5
55°	1132.7	1131.1	1127.9	1167.8	1179.0
57.5°	1049.6	1051.2	1059.2	1081.6	1108.7
60°	974.5	966.5	972.9	1000.1	1022.4
62.5°	897.8	883.5	869.1	913.8	934.6
65°	813.2	795.6	787.6	824.3	859.5
67.5°	734.9	706.1	701.3	726.9	768.4
70°	645.4	610.3	608.7	627.8	677.4
72.5°	546.4	516.0	508.0	533.6	578.3
75°	452.1	418.6	409.0	432.9	474.5
77.5°	349.9	322.7	316.3	329.1	362.6
80°	246.0	230.0	223.7	228.5	252.4
82.5°	155.0	143.8	140.6	139.0	151.8
85°	78.3	70.3	70.3	65.5	68.7
87.5°	24.0	22.4	20.8	16.0	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)