

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: P484981

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1HI-27-120-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: P484981
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-LD4-1HI-27-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

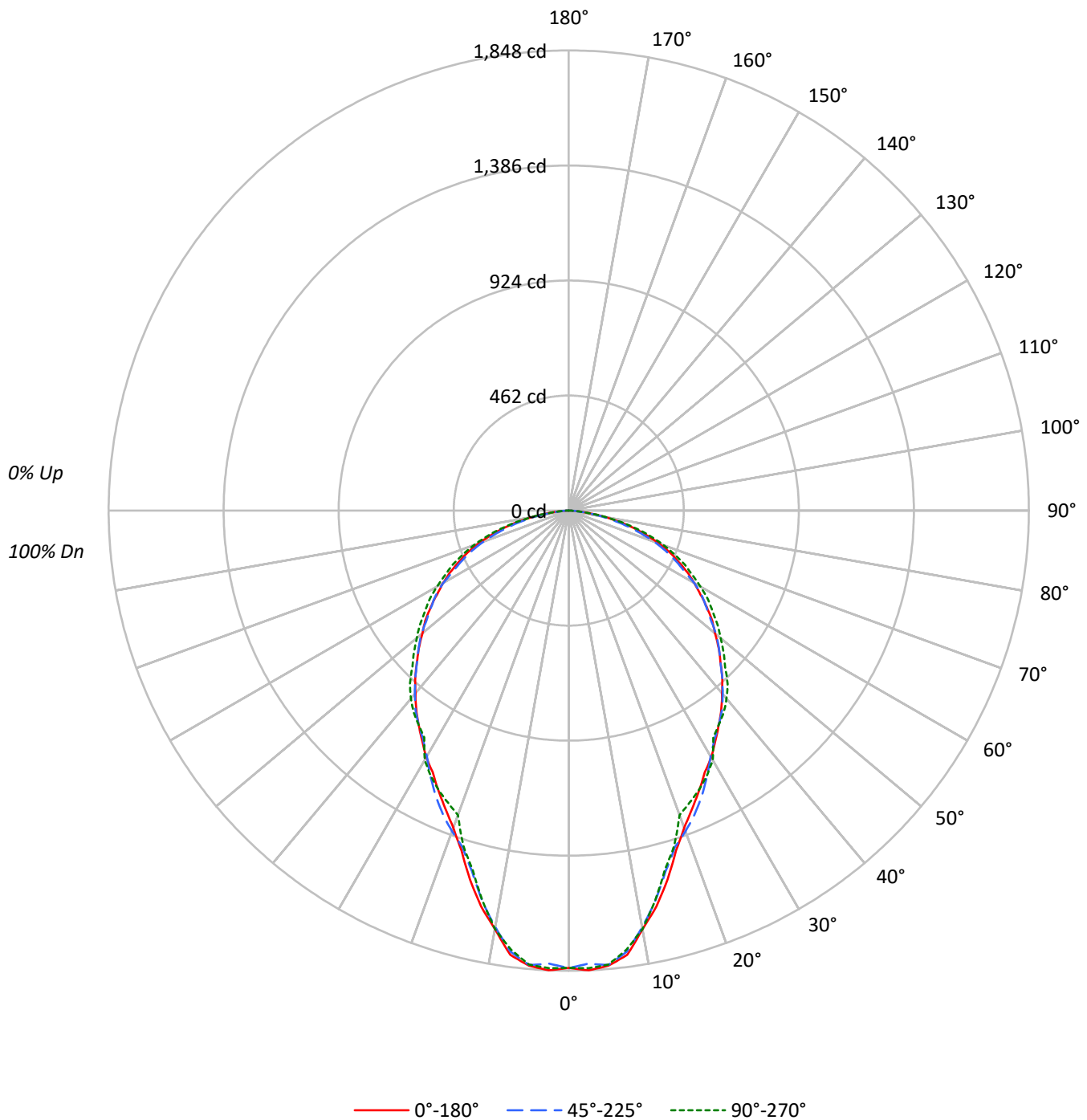
Lumens per Lamp: N/A
Luminaire Lumens: 3927.5 lumens
Efficiency: N/A
Efficacy: 89.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	4942	4942	4942
5°	4956	4948	4943
10°	4663	4642	4661
15°	4273	4180	4156
20°	3881	3924	3725
25°	3681	3754	3675
30°	3555	3540	3594
35°	3451	3451	3451
40°	3365	3378	3462
45°	3282	3278	3380
50°	3211	3234	3334
55°	3177	3163	3307
60°	3136	3130	3289
65°	3095	2998	3272
70°	3035	2863	3186
75°	2810	2542	2949
80°	2280	2072	2338
85°	1445	1297	1269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.6	4.3
10°-20°	426.4	10.9
20°-30°	575.9	14.7
30°-40°	659.5	16.8
40°-50°	675.5	17.2
50°-60°	612.9	15.6
60°-70°	478.4	12.2
70°-80°	271.3	6.9
80°-90°	57.0	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°	1172.9	29.9
0°-40°	1832.4	46.7
0°-60°	3120.8	79.5
0°-90°	3927.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3927.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1836	1836	1836	1836	1836	
5°	1835	1814	1832	1836	1830	171
15°	1534	1538	1500	1508	1492	429
25°	1240	1256	1264	1234	1238	572
35°	1050	1052	1050	1052	1050	658
45°	862	869	861	897	888	667
55°	677	676	674	698	705	605
65°	486	476	471	493	514	482
75°	270	250	244	259	284	283
85°	47	42	42	39	41	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1836.5	1836.5	1836.5	1836.5	1836.5
2.5°	1847.9	1833.6	1821.2	1841.2	1839.3
5°	1834.6	1813.5	1831.7	1835.5	1829.8
7.5°	1799.2	1785.9	1786.8	1779.2	1778.2
10°	1706.6	1714.2	1698.9	1712.3	1705.6
12.5°	1627.3	1632.1	1605.4	1611.1	1603.4
15°	1533.7	1538.5	1500.3	1507.9	1491.7
17.5°	1431.5	1448.7	1417.2	1426.8	1409.6
20°	1355.1	1369.5	1370.4	1355.1	1300.7
22.5°	1295.0	1309.3	1320.8	1274.9	1269.2
25°	1239.6	1255.8	1264.4	1233.9	1237.7
27.5°	1184.2	1202.3	1202.3	1209.0	1200.4
30°	1144.1	1151.7	1139.3	1164.1	1156.5
32.5°	1096.3	1099.2	1088.7	1106.8	1080.1
35°	1050.5	1052.4	1050.5	1051.5	1050.5
37.5°	1006.6	1001.8	1010.4	1004.7	1022.8
40°	957.9	957.9	961.7	971.2	985.6
42.5°	913.0	916.8	912.0	938.8	944.5
45°	862.4	869.1	861.4	896.7	888.2
47.5°	816.5	819.4	817.5	841.4	843.3
50°	766.9	770.7	772.6	793.6	796.5
52.5°	725.8	724.8	718.2	748.7	753.5
55°	677.1	676.1	674.2	698.1	704.8
57.5°	627.4	628.4	633.2	646.5	662.8
60°	582.6	577.8	581.6	597.8	611.2
62.5°	536.7	528.1	519.5	546.3	558.7
65°	486.1	475.6	470.8	492.8	513.8
67.5°	439.3	422.1	419.2	434.5	459.4
70°	385.8	364.8	363.9	375.3	404.9
72.5°	326.6	308.5	303.7	319.0	345.7
75°	270.3	250.2	244.5	258.8	283.6
77.5°	209.1	192.9	189.1	196.7	216.8
80°	147.1	137.5	133.7	136.6	150.9
82.5°	92.6	86.0	84.0	83.1	90.7
85°	46.8	42.0	42.0	39.2	41.1
87.5°	14.3	13.4	12.4	9.6	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)