

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: P485002

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1STD-20-120-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: P485002
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-LD4-1STD-20-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

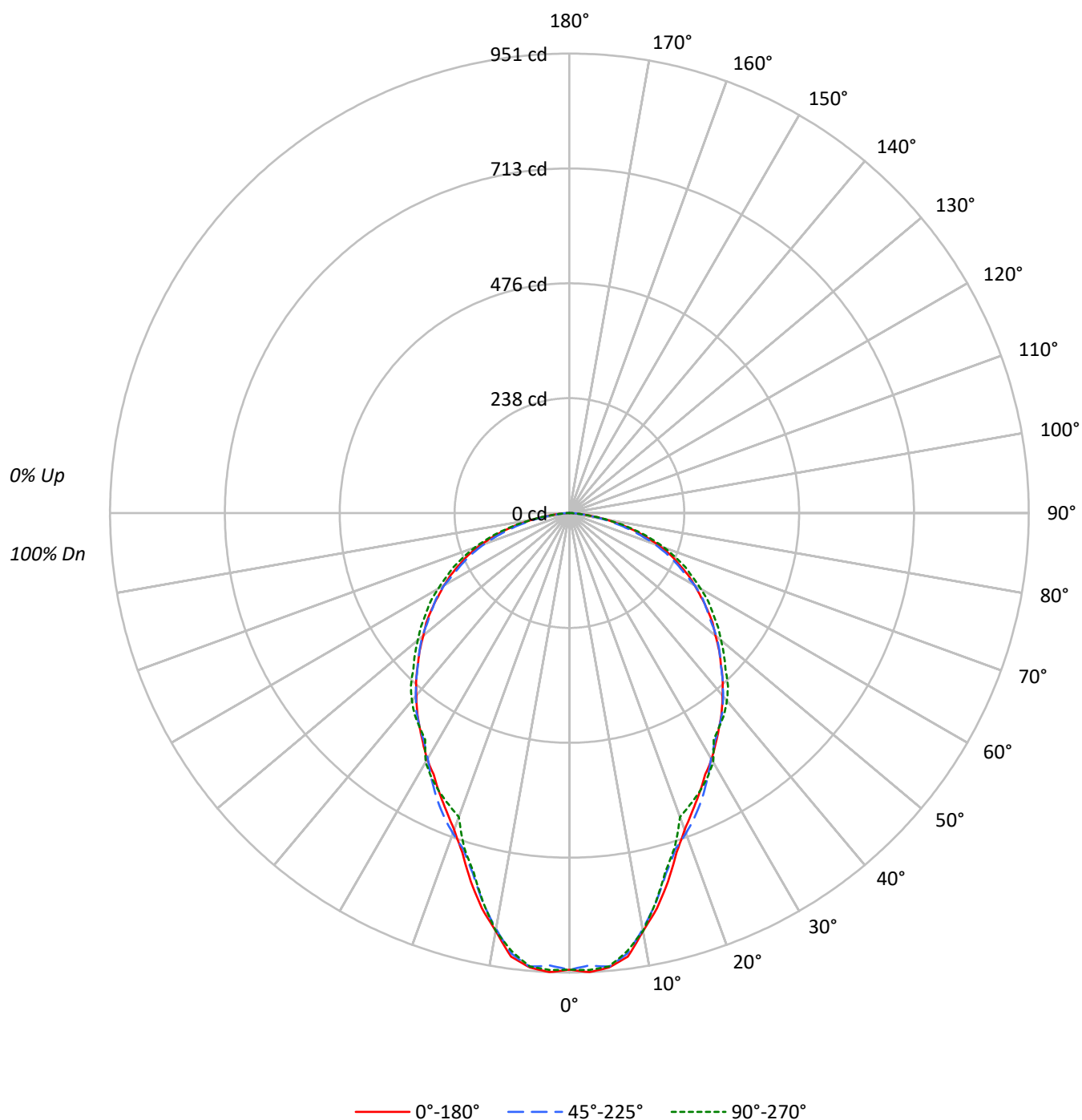
Lumens per Lamp: N/A
Luminaire Lumens: 2021.0 lumens
Efficiency: N/A
Efficacy: 60.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	2543	2543	2543
5°	2550	2546	2544
10°	2400	2389	2398
15°	2199	2151	2138
20°	1997	2019	1917
25°	1894	1932	1891
30°	1829	1822	1849
35°	1776	1776	1776
40°	1731	1738	1781
45°	1689	1687	1739
50°	1652	1665	1716
55°	1635	1628	1702
60°	1614	1611	1693
65°	1592	1543	1684
70°	1562	1473	1640
75°	1446	1308	1518
80°	1173	1066	1203
85°	744	667	651



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	4.3
10°-20°	219.4	10.9
20°-30°	296.3	14.7
30°-40°	339.4	16.8
40°-50°	347.6	17.2
50°-60°	315.4	15.6
60°-70°	246.2	12.2
70°-80°	139.6	6.9
80°-90°	29.3	1.4
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°	603.5	29.9
0°-40°	942.9	46.7
0°-60°	1605.9	79.5
0°-90°	2021.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2021.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	945	945	945	945	945	
5°	944	933	942	944	942	88
15°	789	792	772	776	768	221
25°	638	646	651	635	637	294
35°	541	542	541	541	541	339
45°	444	447	443	461	457	343
55°	348	348	347	359	363	311
65°	250	245	242	254	264	248
75°	139	129	126	133	146	145
85°	24	22	22	20	21	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	945.0	945.0	945.0	945.0	945.0
2.5°	950.9	943.5	937.1	947.5	946.5
5°	944.0	933.2	942.5	944.5	941.6
7.5°	925.8	919.0	919.4	915.5	915.0
10°	878.2	882.1	874.2	881.1	877.7
12.5°	837.4	839.8	826.1	829.0	825.1
15°	789.2	791.7	772.0	776.0	767.6
17.5°	736.6	745.5	729.3	734.2	725.3
20°	697.3	704.7	705.2	697.3	669.3
22.5°	666.4	673.7	679.6	656.0	653.1
25°	637.9	646.2	650.6	634.9	636.9
27.5°	609.4	618.7	618.7	622.1	617.7
30°	588.7	592.7	586.3	599.0	595.1
32.5°	564.2	565.6	560.2	569.6	555.8
35°	540.6	541.5	540.6	541.1	540.6
37.5°	518.0	515.5	519.9	517.0	526.3
40°	492.9	492.9	494.9	499.8	507.1
42.5°	469.8	471.8	469.3	483.1	486.0
45°	443.8	447.2	443.3	461.4	457.0
47.5°	420.2	421.6	420.7	432.9	433.9
50°	394.6	396.6	397.6	408.4	409.8
52.5°	373.5	373.0	369.5	385.3	387.7
55°	348.4	347.9	346.9	359.2	362.7
57.5°	322.9	323.4	325.8	332.7	341.0
60°	299.8	297.3	299.3	307.6	314.5
62.5°	276.2	271.8	267.3	281.1	287.5
65°	250.1	244.7	242.3	253.6	264.4
67.5°	226.1	217.2	215.7	223.6	236.4
70°	198.5	187.7	187.2	193.1	208.4
72.5°	168.1	158.7	156.3	164.1	177.9
75°	139.1	128.8	125.8	133.2	146.0
77.5°	107.6	99.3	97.3	101.2	111.6
80°	75.7	70.8	68.8	70.3	77.6
82.5°	47.7	44.2	43.2	42.8	46.7
85°	24.1	21.6	21.6	20.1	21.1
87.5°	7.4	6.9	6.4	4.9	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)