

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: P485637

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1HI-50-120-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: P485637
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-24-2-INS-89BC-LD4-1HI-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

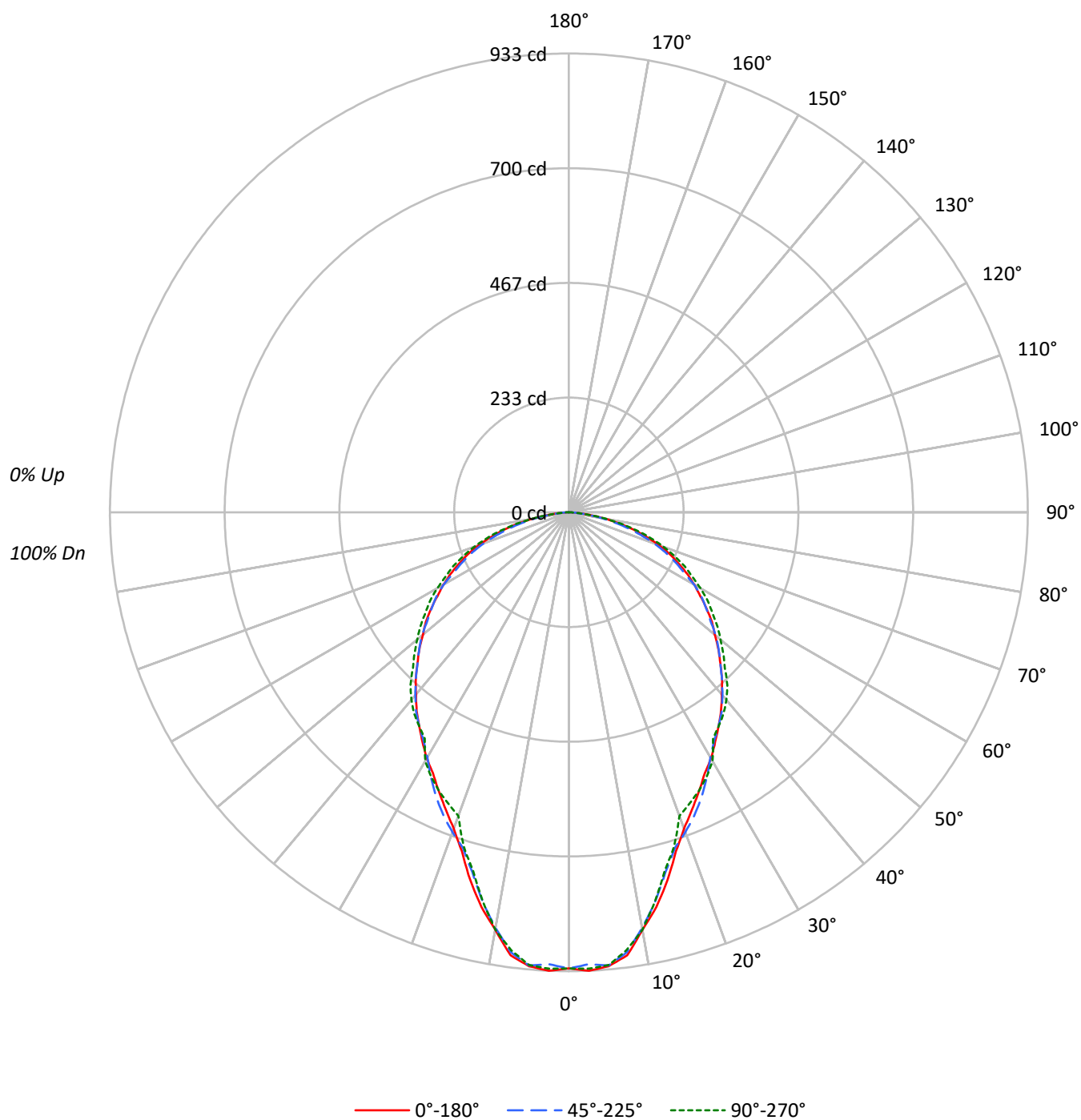
Lumens per Lamp: N/A
Luminaire Lumens: 1983.2 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 22
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°	2495	2495	2495
5°	2502	2498	2496
10°	2355	2344	2353
15°	2158	2111	2098
20°	1960	1982	1881
25°	1858	1896	1856
30°	1795	1788	1815
35°	1743	1743	1743
40°	1699	1706	1748
45°	1657	1655	1707
50°	1621	1633	1684
55°	1604	1597	1670
60°	1583	1581	1661
65°	1563	1514	1652
70°	1533	1445	1609
75°	1419	1284	1489
80°	1151	1046	1181
85°	729	655	639



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	4.3
10°-20°	215.3	10.9
20°-30°	290.8	14.7
30°-40°	333.0	16.8
40°-50°	341.1	17.2
50°-60°	309.5	15.6
60°-70°	241.6	12.2
70°-80°	137.0	6.9
80°-90°	28.8	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°	592.3	29.9
0°-40°	925.3	46.7
0°-60°	1575.9	79.5
0°-90°	1983.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1983.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	927	927	927	927	927	
5°	926	916	925	927	924	87
15°	774	777	758	761	753	216
25°	626	634	638	623	625	289
35°	530	531	530	531	530	332
45°	436	439	435	453	448	337
55°	342	341	340	352	356	306
65°	246	240	238	249	259	243
75°	136	126	124	131	143	143
85°	24	21	21	20	21	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	927.3	927.3	927.3	927.3	927.3
2.5°	933.1	925.9	919.6	929.7	928.8
5°	926.4	915.8	924.9	926.8	924.0
7.5°	908.5	901.8	902.3	898.4	897.9
10°	861.7	865.6	857.9	864.6	861.3
12.5°	821.7	824.1	810.6	813.5	809.7
15°	774.5	776.9	757.6	761.4	753.2
17.5°	722.9	731.5	715.6	720.5	711.8
20°	684.3	691.5	692.0	684.3	656.8
22.5°	653.9	661.1	666.9	643.8	640.9
25°	625.9	634.1	638.5	623.0	625.0
27.5°	598.0	607.1	607.1	610.5	606.2
30°	577.7	581.6	575.3	587.8	584.0
32.5°	553.6	555.0	549.7	558.9	545.4
35°	530.5	531.4	530.5	530.9	530.5
37.5°	508.3	505.9	510.2	507.3	516.5
40°	483.7	483.7	485.6	490.4	497.7
42.5°	461.0	462.9	460.5	474.0	476.9
45°	435.5	438.8	435.0	452.8	448.5
47.5°	412.3	413.8	412.8	424.8	425.8
50°	387.2	389.2	390.1	400.7	402.2
52.5°	366.5	366.0	362.6	378.1	380.5
55°	341.9	341.4	340.5	352.5	355.9
57.5°	316.8	317.3	319.7	326.5	334.7
60°	294.2	291.7	293.7	301.9	308.6
62.5°	271.0	266.7	262.3	275.8	282.1
65°	245.5	240.2	237.7	248.8	259.4
67.5°	221.8	213.1	211.7	219.4	232.0
70°	194.8	184.2	183.7	189.5	204.5
72.5°	164.9	155.8	153.3	161.1	174.6
75°	136.5	126.3	123.5	130.7	143.2
77.5°	105.6	97.4	95.5	99.3	109.5
80°	74.3	69.4	67.5	69.0	76.2
82.5°	46.8	43.4	42.4	42.0	45.8
85°	23.6	21.2	21.2	19.8	20.7
87.5°	7.2	6.8	6.3	4.8	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)