

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: P485670

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2HI-40-120-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: P485670
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-LD4-2HI-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

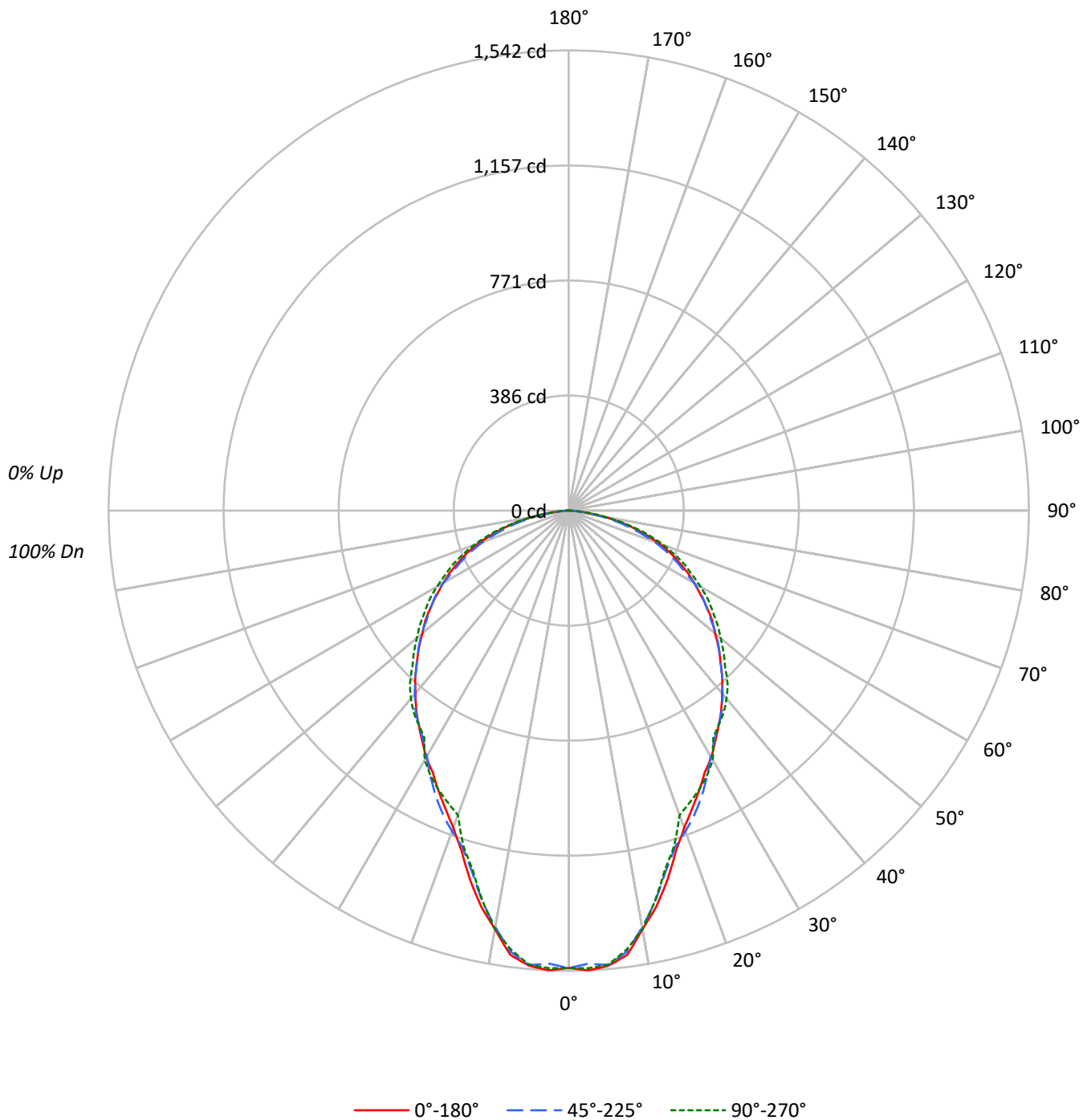
Lumens per Lamp: N/A
Luminaire Lumens: 3277.1 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		79
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		70
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		63
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		44
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4123	4123	4123
5°	4135	4129	4124
10°	3891	3874	3889
15°	3565	3488	3468
20°	3238	3275	3108
25°	3071	3132	3066
30°	2966	2954	2999
35°	2879	2879	2879
40°	2807	2819	2889
45°	2739	2735	2820
50°	2679	2699	2782
55°	2651	2639	2759
60°	2616	2612	2745
65°	2583	2501	2730
70°	2533	2389	2659
75°	2345	2121	2461
80°	1901	1729	1951
85°	1204	1084	1059



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	4.3
10°-20°	355.8	10.9
20°-30°	480.5	14.7
30°-40°	550.3	16.8
40°-50°	563.7	17.2
50°-60°	511.4	15.6
60°-70°	399.2	12.2
70°-80°	226.4	6.9
80°-90°	47.5	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°	978.7	29.9
0°-40°	1528.9	46.7
0°-60°	2604.0	79.5
0°-90°	3277.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3277.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1532	1532	1532	1532	1532	
5°	1531	1513	1528	1532	1527	143
15°	1280	1284	1252	1258	1245	358
25°	1034	1048	1055	1030	1033	477
35°	876	878	876	877	876	549
45°	720	725	719	748	741	556
55°	565	564	563	582	588	505
65°	406	397	393	411	429	402
75°	226	209	204	216	237	236
85°	39	35	35	33	34	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1532.3	1532.3	1532.3	1532.3	1532.3
2.5°	1541.9	1530.0	1519.6	1536.3	1534.7
5°	1530.8	1513.2	1528.4	1531.5	1526.8
7.5°	1501.3	1490.1	1490.9	1484.5	1483.7
10°	1424.0	1430.3	1417.6	1428.8	1423.2
12.5°	1357.8	1361.8	1339.5	1344.3	1337.9
15°	1279.7	1283.7	1251.9	1258.2	1244.7
17.5°	1194.5	1208.8	1182.5	1190.5	1176.2
20°	1130.7	1142.7	1143.5	1130.7	1085.3
22.5°	1080.5	1092.5	1102.0	1063.8	1059.0
25°	1034.3	1047.9	1055.0	1029.5	1032.7
27.5°	988.1	1003.2	1003.2	1008.8	1001.6
30°	954.6	961.0	950.6	971.4	965.0
32.5°	914.8	917.2	908.4	923.6	901.2
35°	876.5	878.1	876.5	877.3	876.5
37.5°	839.9	835.9	843.1	838.3	853.4
40°	799.2	799.2	802.4	810.4	822.4
42.5°	761.8	765.0	761.0	783.3	788.1
45°	719.6	725.1	718.8	748.2	741.1
47.5°	681.3	683.7	682.1	702.0	703.6
50°	639.9	643.1	644.7	662.2	664.6
52.5°	605.6	604.8	599.2	624.7	628.7
55°	565.0	564.2	562.6	582.5	588.1
57.5°	523.5	524.3	528.3	539.5	553.0
60°	486.1	482.1	485.3	498.8	510.0
62.5°	447.8	440.7	433.5	455.8	466.2
65°	405.6	396.8	392.8	411.2	428.7
67.5°	366.6	352.2	349.8	362.6	383.3
70°	321.9	304.4	303.6	313.2	337.9
72.5°	272.5	257.4	253.4	266.1	288.5
75°	225.5	208.8	204.0	215.9	236.7
77.5°	174.5	161.0	157.8	164.2	180.9
80°	122.7	114.7	111.6	113.9	125.9
82.5°	77.3	71.7	70.1	69.3	75.7
85°	39.0	35.1	35.1	32.7	34.3
87.5°	12.0	11.2	10.4	8.0	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)