

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: P485719

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3LO-40-120-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: P485719
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-LD4-3LO-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

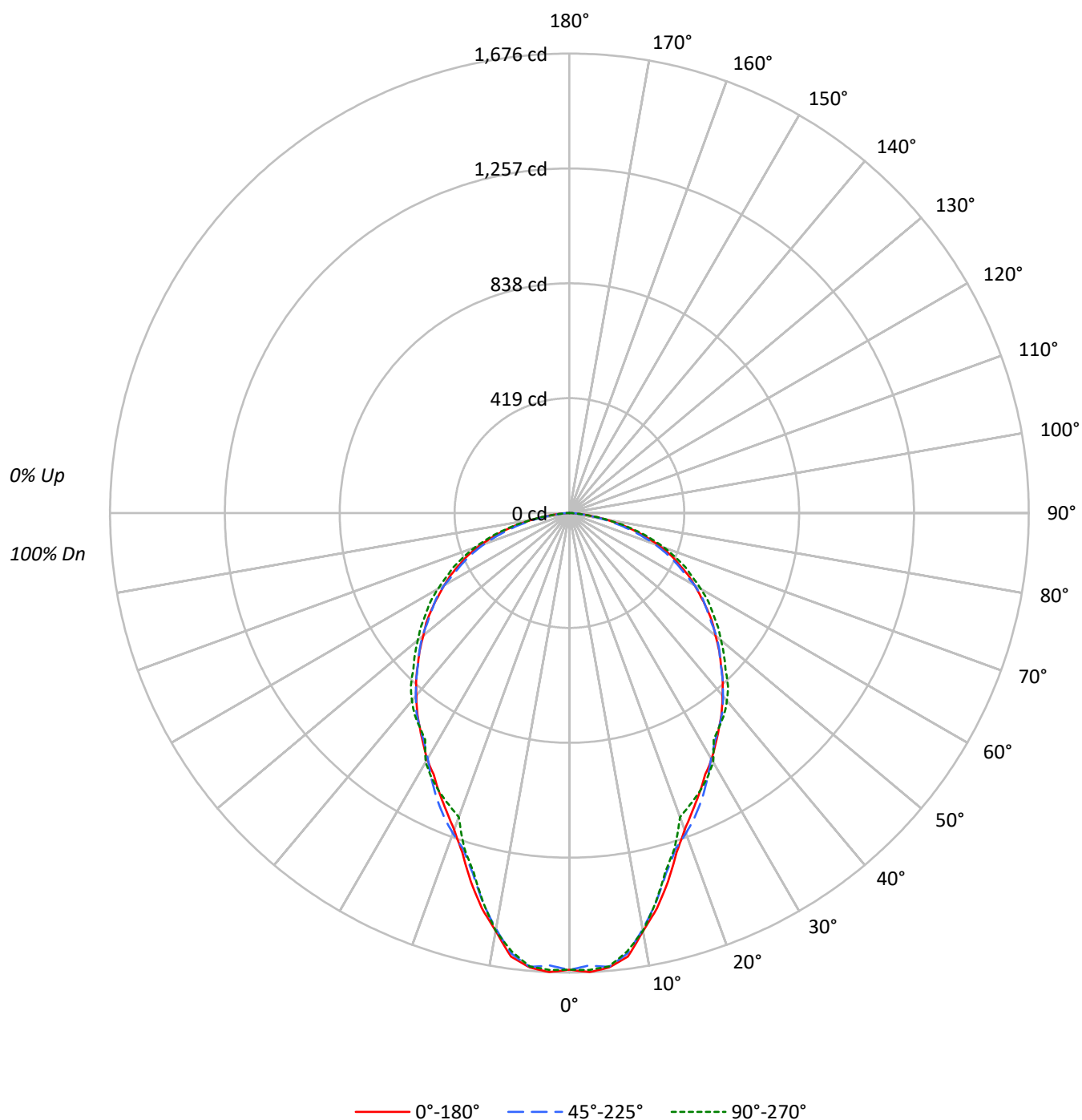
Lumens per Lamp: N/A
Luminaire Lumens: 3561.7 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	4482	4482	4482
5°	4494	4487	4482
10°	4229	4210	4227
15°	3875	3791	3769
20°	3519	3559	3378
25°	3338	3405	3333
30°	3224	3210	3259
35°	3130	3130	3130
40°	3052	3064	3140
45°	2976	2973	3065
50°	2911	2933	3024
55°	2881	2868	2998
60°	2843	2838	2983
65°	2807	2719	2967
70°	2753	2596	2889
75°	2548	2305	2674
80°	2067	1878	2120
85°	1309	1176	1149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.7	4.3
10°-20°	386.7	10.9
20°-30°	522.3	14.7
30°-40°	598.1	16.8
40°-50°	612.6	17.2
50°-60°	555.9	15.6
60°-70°	433.8	12.2
70°-80°	246.1	6.9
80°-90°	51.6	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°	1063.7	29.9
0°-40°	1661.7	46.7
0°-60°	2830.2	79.5
0°-90°	3561.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3561.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1665	1665	1665	1665	1665	
5°	1664	1645	1661	1665	1659	155
15°	1391	1395	1361	1368	1353	389
25°	1124	1139	1147	1119	1122	519
35°	953	954	953	954	953	597
45°	782	788	781	813	805	605
55°	614	613	611	633	639	549
65°	441	431	427	447	466	437
75°	245	227	222	235	257	256
85°	42	38	38	36	37	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1665.4	1665.4	1665.4	1665.4	1665.4
2.5°	1675.8	1662.8	1651.6	1669.8	1668.0
5°	1663.7	1644.6	1661.1	1664.6	1659.4
7.5°	1631.6	1619.5	1620.4	1613.5	1612.6
10°	1547.6	1554.6	1540.7	1552.8	1546.8
12.5°	1475.8	1480.1	1455.8	1461.0	1454.1
15°	1390.9	1395.2	1360.6	1367.5	1352.8
17.5°	1298.2	1313.8	1285.2	1293.9	1278.3
20°	1228.9	1241.9	1242.8	1228.9	1179.6
22.5°	1174.4	1187.4	1197.8	1156.2	1151.0
25°	1124.1	1138.9	1146.7	1118.9	1122.4
27.5°	1073.9	1090.4	1090.4	1096.4	1088.6
30°	1037.5	1044.5	1033.2	1055.7	1048.8
32.5°	994.2	996.8	987.3	1003.8	979.5
35°	952.7	954.4	952.7	953.5	952.7
37.5°	912.8	908.5	916.3	911.1	927.5
40°	868.7	868.7	872.1	880.8	893.8
42.5°	827.9	831.4	827.1	851.3	856.5
45°	782.0	788.1	781.2	813.2	805.4
47.5°	740.5	743.1	741.3	763.0	764.7
50°	695.4	698.9	700.6	719.7	722.3
52.5°	658.2	657.3	651.3	679.0	683.3
55°	614.0	613.2	611.4	633.1	639.1
57.5°	569.0	569.9	574.2	586.3	601.0
60°	528.3	524.0	527.4	542.1	554.3
62.5°	486.7	478.9	471.1	495.4	506.6
65°	440.8	431.3	427.0	446.9	465.9
67.5°	398.4	382.8	380.2	394.1	416.6
70°	349.9	330.8	330.0	340.4	367.2
72.5°	296.2	279.7	275.4	289.3	313.5
75°	245.1	226.9	221.7	234.7	257.2
77.5°	189.7	174.9	171.5	178.4	196.6
80°	133.4	124.7	121.2	123.8	136.8
82.5°	84.0	77.9	76.2	75.3	82.3
85°	42.4	38.1	38.1	35.5	37.2
87.5°	13.0	12.1	11.3	8.7	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)