

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: P485681

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2LO-35-120-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: P485681
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-LD4-2LO-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

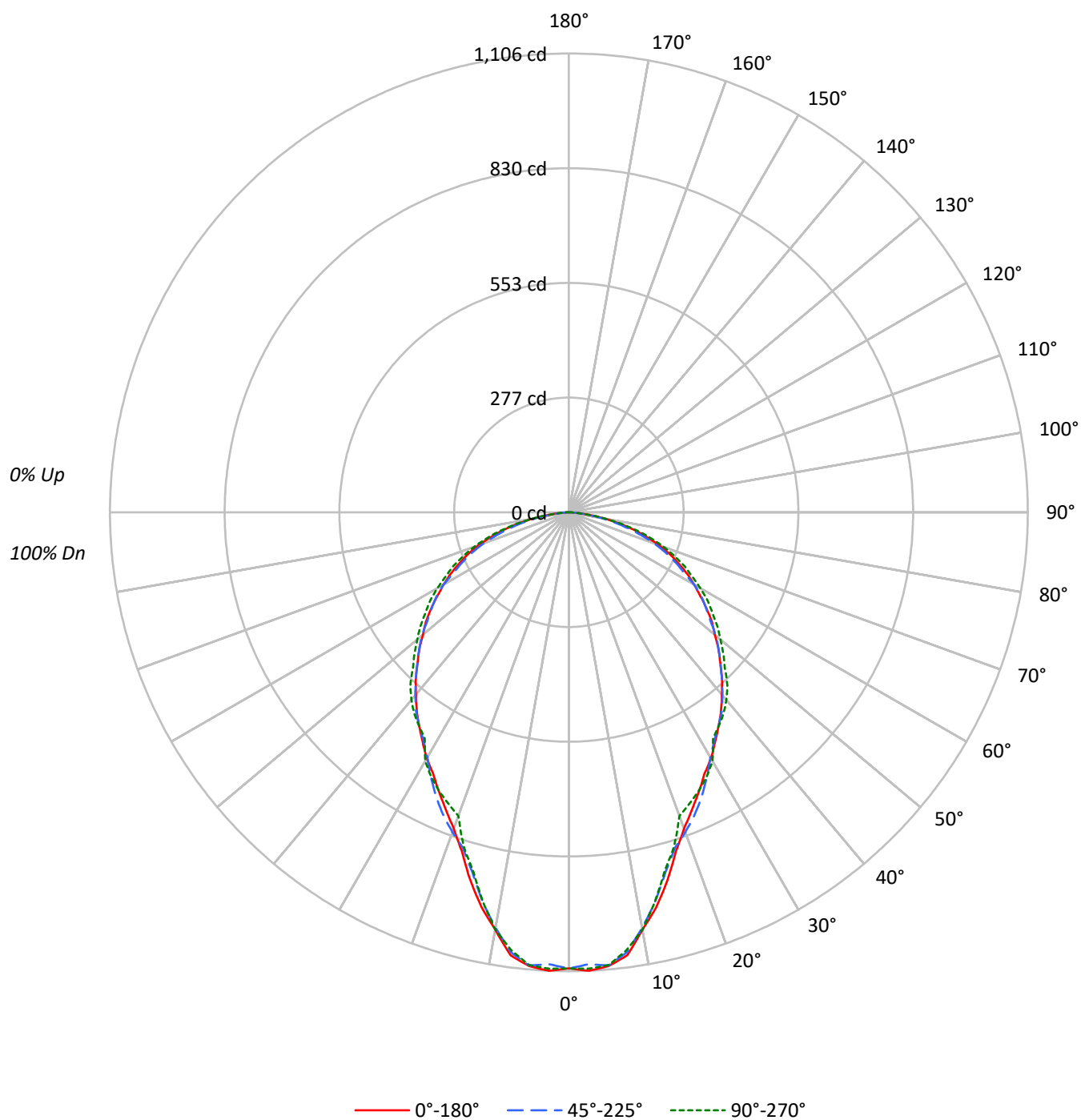
Lumens per Lamp: N/A
Luminaire Lumens: 2350.9 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2958	2958	2958
5°	2966	2962	2959
10°	2791	2779	2790
15°	2558	2502	2488
20°	2323	2349	2230
25°	2203	2247	2200
30°	2128	2119	2151
35°	2066	2066	2066
40°	2014	2022	2072
45°	1964	1962	2023
50°	1922	1936	1996
55°	1901	1894	1979
60°	1877	1873	1969
65°	1853	1794	1958
70°	1817	1714	1907
75°	1682	1521	1765
80°	1364	1240	1399
85°	865	778	760



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.1	4.3
10°-20°	255.2	10.9
20°-30°	344.7	14.7
30°-40°	394.7	16.8
40°-50°	404.4	17.2
50°-60°	366.9	15.6
60°-70°	286.4	12.2
70°-80°	162.4	6.9
80°-90°	34.1	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°	702.1	29.9
0°-40°	1096.8	46.7
0°-60°	1868.0	79.5
0°-90°	2350.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2350.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1099	1099	1099	1099	1099	
5°	1098	1086	1096	1099	1095	103
15°	918	921	898	903	893	257
25°	742	752	757	739	741	342
35°	629	630	629	629	629	394
45°	516	520	516	537	532	399
55°	405	405	404	418	422	362
65°	291	285	282	295	308	288
75°	162	150	146	155	170	169
85°	28	25	25	23	25	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1099.3	1099.3	1099.3	1099.3	1099.3
2.5°	1106.1	1097.5	1090.1	1102.1	1101.0
5°	1098.1	1085.5	1096.4	1098.7	1095.3
7.5°	1077.0	1069.0	1069.5	1065.0	1064.4
10°	1021.5	1026.1	1016.9	1024.9	1020.9
12.5°	974.1	976.9	960.9	964.4	959.8
15°	918.1	920.9	898.0	902.6	892.9
17.5°	856.9	867.2	848.3	854.0	843.7
20°	811.2	819.7	820.3	811.2	778.6
22.5°	775.1	783.7	790.6	763.1	759.7
25°	742.0	751.7	756.8	738.6	740.8
27.5°	708.8	719.7	719.7	723.7	718.6
30°	684.8	689.4	682.0	696.8	692.3
32.5°	656.2	658.0	651.7	662.5	646.5
35°	628.8	629.9	628.8	629.4	628.8
37.5°	602.5	599.6	604.8	601.4	612.2
40°	573.4	573.4	575.6	581.4	589.9
42.5°	546.5	548.8	545.9	561.9	565.4
45°	516.2	520.2	515.6	536.8	531.6
47.5°	488.8	490.5	489.3	503.6	504.8
50°	459.0	461.3	462.5	475.0	476.7
52.5°	434.4	433.9	429.9	448.2	451.0
55°	405.3	404.7	403.6	417.9	421.9
57.5°	375.6	376.1	379.0	387.0	396.7
60°	348.7	345.8	348.1	357.8	365.8
62.5°	321.3	316.1	311.0	327.0	334.4
65°	291.0	284.7	281.8	295.0	307.5
67.5°	263.0	252.7	250.9	260.1	275.0
70°	230.9	218.4	217.8	224.7	242.4
72.5°	195.5	184.6	181.8	190.9	206.9
75°	161.8	149.8	146.3	154.9	169.8
77.5°	125.2	115.5	113.2	117.8	129.8
80°	88.0	82.3	80.0	81.7	90.3
82.5°	55.4	51.4	50.3	49.7	54.3
85°	28.0	25.2	25.2	23.4	24.6
87.5°	8.6	8.0	7.4	5.7	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)