

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: P485685

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2LO-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: P485685
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-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

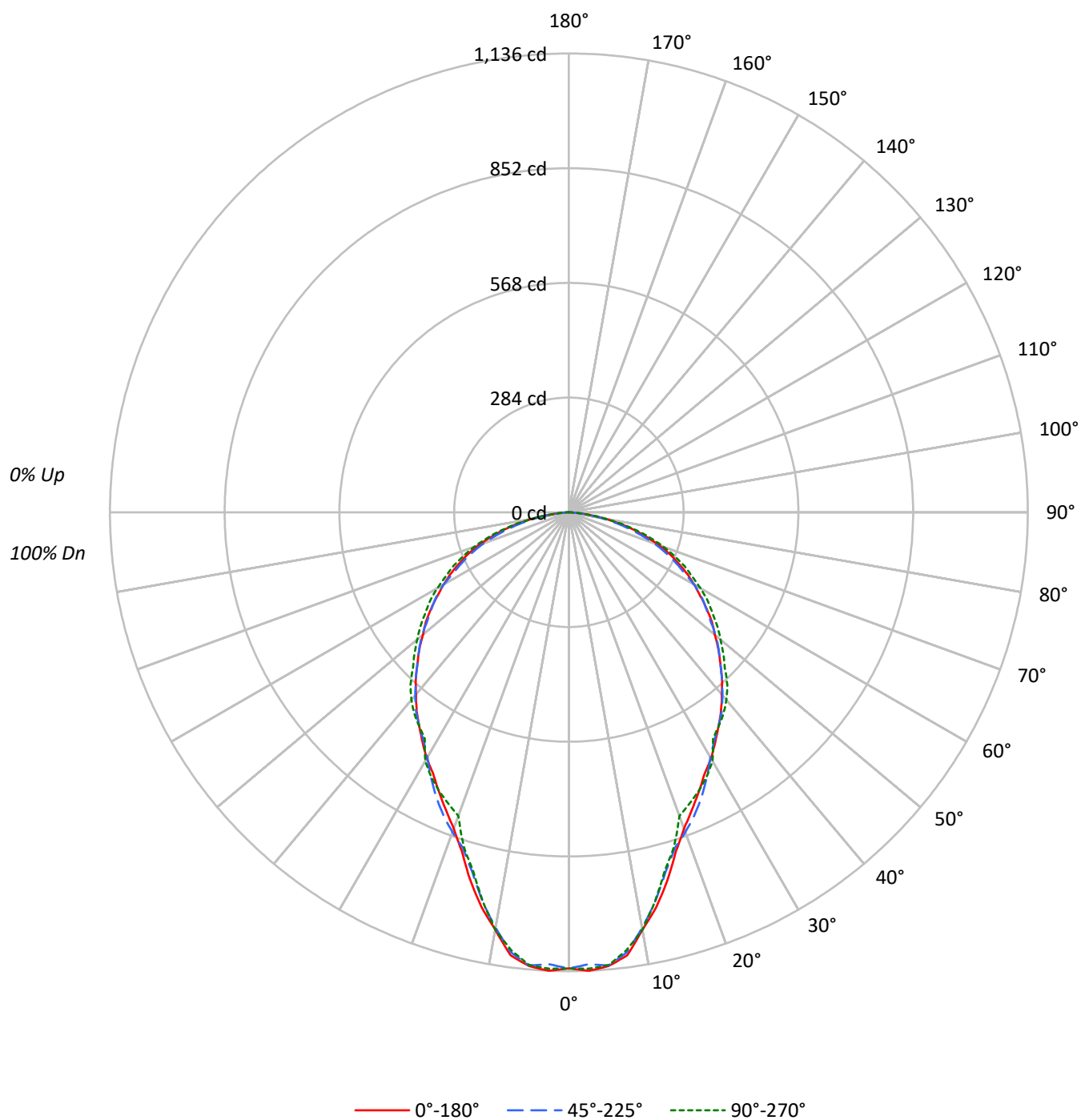
Lumens per Lamp: N/A
Luminaire Lumens: 2414.7 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3038	3038	3038
5°	3047	3042	3039
10°	2867	2854	2866
15°	2627	2570	2555
20°	2386	2413	2290
25°	2263	2308	2259
30°	2186	2177	2209
35°	2122	2122	2122
40°	2069	2077	2128
45°	2018	2015	2078
50°	1974	1989	2050
55°	1953	1945	2033
60°	1928	1925	2023
65°	1903	1843	2011
70°	1866	1760	1959
75°	1728	1563	1813
80°	1401	1274	1438
85°	889	797	778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.9	4.3
10°-20°	262.2	10.9
20°-30°	354.1	14.7
30°-40°	405.5	16.8
40°-50°	415.3	17.2
50°-60°	376.8	15.6
60°-70°	294.1	12.2
70°-80°	166.8	6.9
80°-90°	35.0	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°	721.1	29.9
0°-40°	1126.6	46.7
0°-60°	1918.7	79.5
0°-90°	2414.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2414.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1129	1129	1129	1129	1129	
5°	1128	1115	1126	1128	1125	105
15°	943	946	922	927	917	264
25°	762	772	777	759	761	352
35°	646	647	646	646	646	405
45°	530	534	530	551	546	410
55°	416	416	414	429	433	372
65°	299	292	290	303	316	296
75°	166	154	150	159	174	174
85°	29	26	26	24	25	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1129.1	1129.1	1129.1	1129.1	1129.1
2.5°	1136.1	1127.3	1119.7	1132.0	1130.9
5°	1127.9	1115.0	1126.2	1128.5	1125.0
7.5°	1106.2	1098.0	1098.6	1093.9	1093.3
10°	1049.2	1053.9	1044.5	1052.8	1048.7
12.5°	1000.5	1003.4	987.0	990.5	985.8
15°	943.0	945.9	922.4	927.1	917.1
17.5°	880.1	890.7	871.3	877.2	866.6
20°	833.2	842.0	842.6	833.2	799.7
22.5°	796.2	805.0	812.0	783.8	780.3
25°	762.1	772.1	777.4	758.6	760.9
27.5°	728.1	739.2	739.2	743.3	738.1
30°	703.4	708.1	700.5	715.7	711.0
32.5°	674.1	675.8	669.4	680.5	664.1
35°	645.9	647.0	645.9	646.5	645.9
37.5°	618.9	615.9	621.2	617.7	628.8
40°	588.9	588.9	591.3	597.1	605.9
42.5°	561.3	563.7	560.7	577.2	580.7
45°	530.2	534.3	529.6	551.3	546.1
47.5°	502.0	503.8	502.6	517.3	518.5
50°	471.5	473.8	475.0	487.9	489.7
52.5°	446.2	445.6	441.5	460.3	463.3
55°	416.3	415.7	414.5	429.2	433.3
57.5°	385.8	386.3	389.3	397.5	407.5
60°	358.2	355.2	357.6	367.6	375.8
62.5°	330.0	324.7	319.4	335.9	343.5
65°	298.9	292.4	289.5	303.0	315.9
67.5°	270.1	259.5	257.8	267.2	282.4
70°	237.2	224.3	223.7	230.8	249.0
72.5°	200.8	189.7	186.7	196.1	212.5
75°	166.2	153.8	150.3	159.1	174.4
77.5°	128.6	118.6	116.3	121.0	133.3
80°	90.4	84.5	82.2	84.0	92.8
82.5°	57.0	52.8	51.7	51.1	55.8
85°	28.8	25.8	25.8	24.1	25.2
87.5°	8.8	8.2	7.6	5.9	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)