

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: P485687

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2STD-20-120-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: P485687
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-LD4-2STD-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

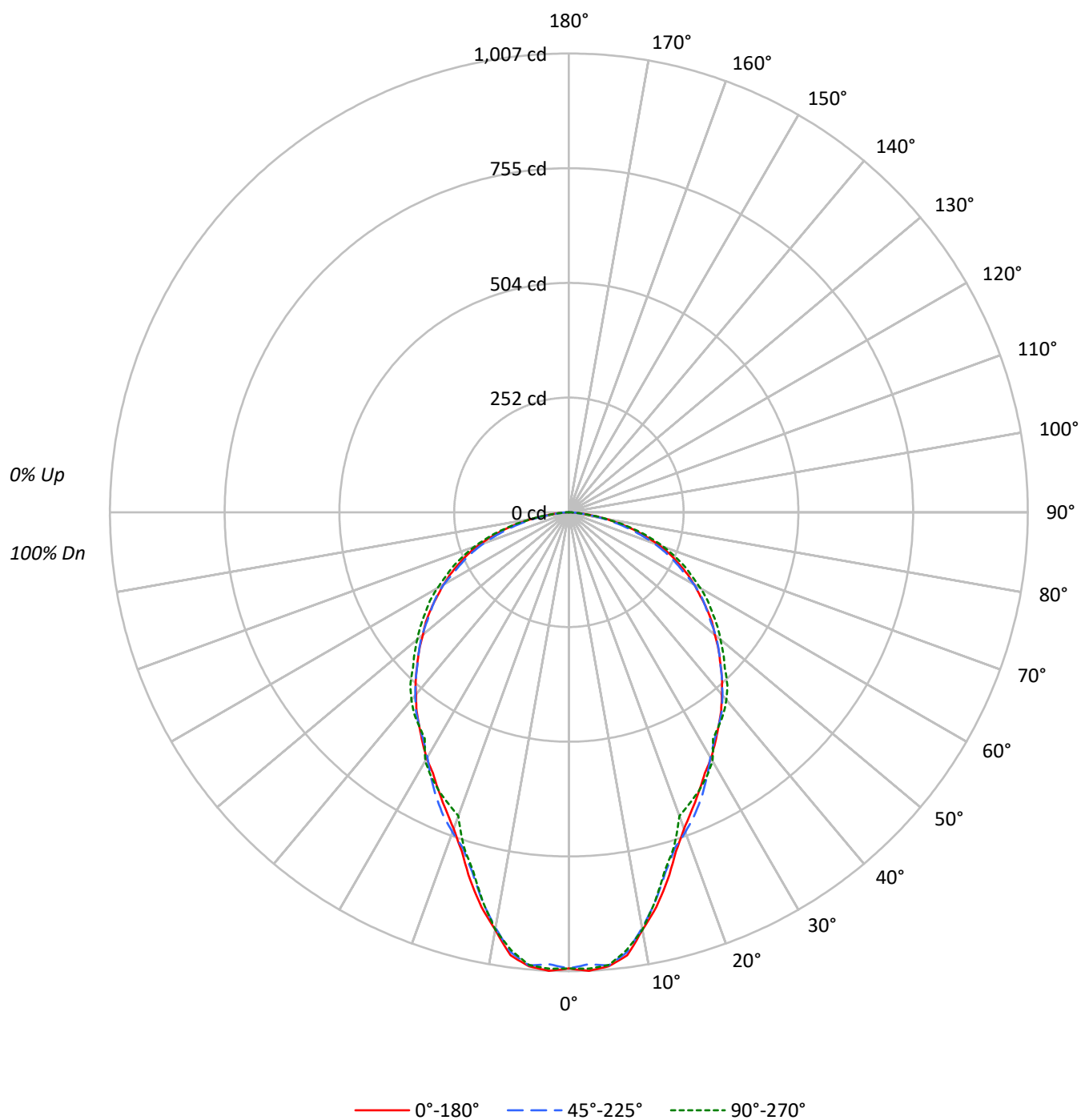
Lumens per Lamp: N/A
Luminaire Lumens: 2140.8 lumens
Efficiency: N/A
Efficacy: 64.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	2694	2694	2694
5°	2701	2697	2694
10°	2542	2531	2540
15°	2329	2278	2265
20°	2115	2139	2030
25°	2006	2046	2003
30°	1938	1930	1959
35°	1881	1881	1881
40°	1834	1841	1887
45°	1789	1787	1842
50°	1750	1763	1817
55°	1732	1724	1803
60°	1709	1706	1793
65°	1687	1634	1784
70°	1655	1560	1736
75°	1531	1386	1607
80°	1243	1130	1274
85°	787	707	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.0	4.3
10°-20°	232.4	10.9
20°-30°	313.9	14.7
30°-40°	359.5	16.8
40°-50°	368.2	17.2
50°-60°	334.1	15.6
60°-70°	260.8	12.2
70°-80°	147.9	6.9
80°-90°	31.0	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°	639.3	29.9
0°-40°	998.8	46.7
0°-60°	1701.1	79.5
0°-90°	2140.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2140.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	1000	988	998	1000	997	93
15°	836	839	818	822	813	234
25°	676	684	689	673	675	312
35°	573	574	573	573	573	359
45°	470	474	470	489	484	363
55°	369	369	368	380	384	330
65°	265	259	257	269	280	263
75°	147	136	133	141	155	154
85°	26	23	23	21	22	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1001.0	1001.0	1001.0	1001.0	1001.0
2.5°	1007.3	999.5	992.7	1003.6	1002.6
5°	1000.0	988.5	998.4	1000.5	997.4
7.5°	980.7	973.4	974.0	969.8	969.3
10°	930.2	934.4	926.1	933.3	929.7
12.5°	887.0	889.6	875.0	878.2	874.0
15°	836.0	838.6	817.8	822.0	813.1
17.5°	780.3	789.7	772.5	777.7	768.3
20°	738.7	746.5	747.0	738.7	709.0
22.5°	705.9	713.7	719.9	694.9	691.8
25°	675.7	684.5	689.2	672.6	674.6
27.5°	645.5	655.4	655.4	659.0	654.3
30°	623.6	627.8	621.0	634.6	630.4
32.5°	597.6	599.2	593.4	603.3	588.7
35°	572.6	573.6	572.6	573.1	572.6
37.5°	548.7	546.1	550.7	547.6	557.5
40°	522.1	522.1	524.2	529.4	537.2
42.5°	497.6	499.7	497.1	511.7	514.8
45°	470.1	473.7	469.5	488.8	484.1
47.5°	445.1	446.6	445.6	458.6	459.6
50°	418.0	420.1	421.1	432.6	434.1
52.5°	395.6	395.1	391.5	408.1	410.7
55°	369.1	368.6	367.5	380.5	384.2
57.5°	342.0	342.5	345.1	352.4	361.3
60°	317.5	314.9	317.0	325.9	333.2
62.5°	292.5	287.9	283.2	297.8	304.5
65°	265.0	259.2	256.6	268.6	280.1
67.5°	239.5	230.1	228.5	236.9	250.4
70°	210.3	198.9	198.3	204.6	220.7
72.5°	178.0	168.1	165.5	173.9	188.4
75°	147.3	136.4	133.3	141.1	154.6
77.5°	114.0	105.2	103.1	107.2	118.2
80°	80.2	75.0	72.9	74.4	82.2
82.5°	50.5	46.8	45.8	45.3	49.5
85°	25.5	22.9	22.9	21.3	22.4
87.5°	7.8	7.3	6.8	5.2	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)