

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: P485829

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6LO-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: P485829
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-LD4-6LO-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

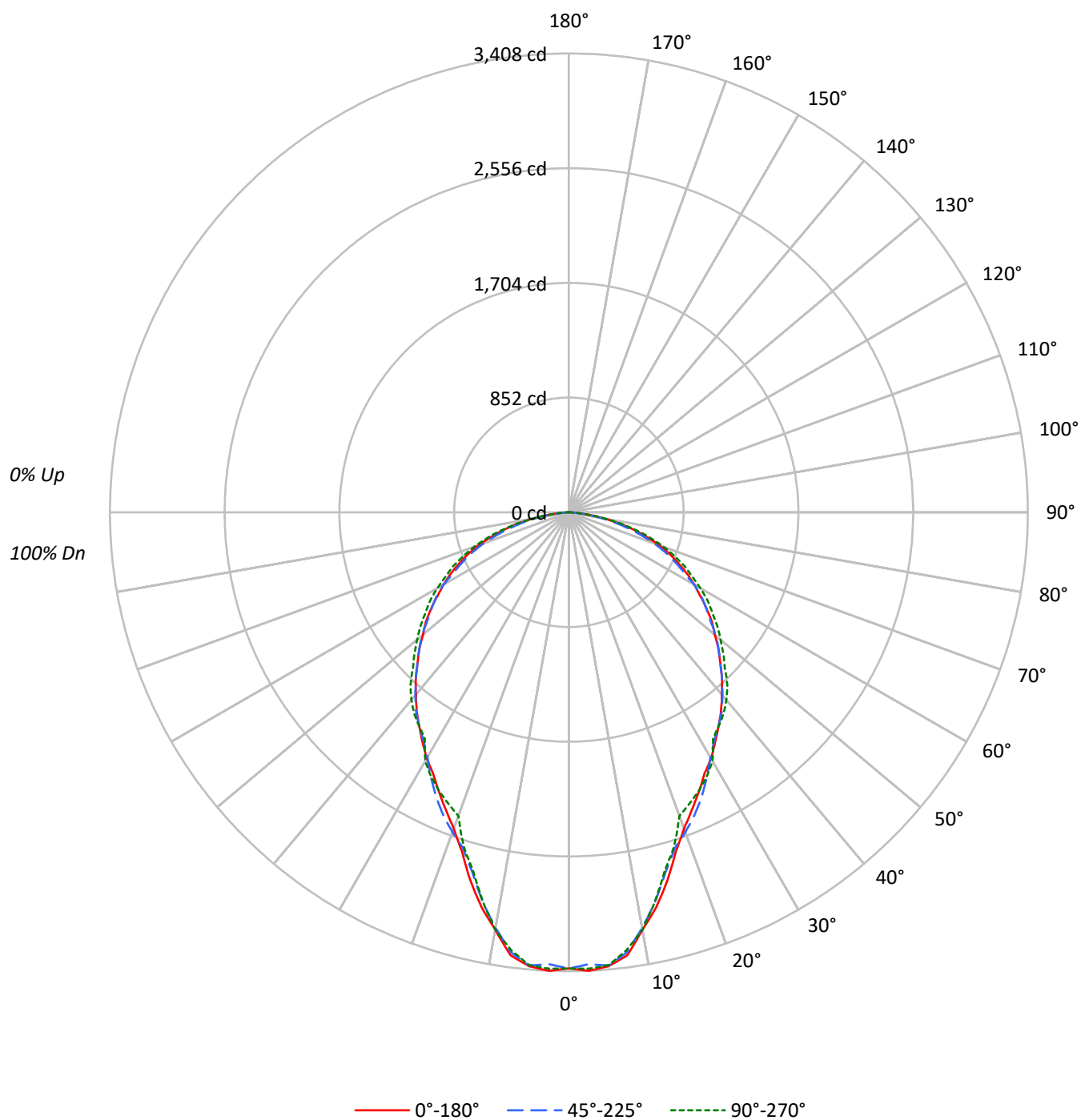
Lumens per Lamp: N/A
Luminaire Lumens: 7244.2 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	9115	9115	9115
5°	9141	9126	9117
10°	8601	8563	8596
15°	7881	7709	7665
20°	7158	7239	6870
25°	6789	6925	6778
30°	6557	6530	6628
35°	6365	6365	6365
40°	6206	6231	6386
45°	6053	6047	6234
50°	5922	5966	6150
55°	5859	5834	6099
60°	5783	5773	6067
65°	5709	5529	6034
70°	5599	5280	5877
75°	5183	4688	5440
80°	4204	3821	4313
85°	2665	2393	2337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	314.6	4.3
10°-20°	786.5	10.9
20°-30°	1062.2	14.7
30°-40°	1216.4	16.8
40°-50°	1246.0	17.2
50°-60°	1130.6	15.6
60°-70°	882.4	12.2
70°-80°	500.5	6.9
80°-90°	105.0	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°	2163.4	29.9
0°-40°	3379.8	46.7
0°-60°	5756.3	79.5
0°-90°	7244.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7244.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3387	3387	3387	3387	3387	
5°	3384	3345	3378	3386	3375	316
15°	2829	2838	2767	2781	2751	791
25°	2286	2316	2332	2276	2283	1055
35°	1938	1941	1938	1939	1938	1214
45°	1591	1603	1589	1654	1638	1230
55°	1249	1247	1244	1288	1300	1116
65°	897	877	868	909	948	889
75°	498	462	451	477	523	521
85°	86	78	78	72	76	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3387.3	3387.3	3387.3	3387.3	3387.3
2.5°	3408.5	3382.0	3359.1	3396.1	3392.6
5°	3383.8	3345.1	3378.5	3385.6	3375.0
7.5°	3318.6	3294.0	3295.7	3281.6	3279.9
10°	3147.8	3161.9	3133.7	3158.3	3146.0
12.5°	3001.6	3010.4	2961.0	2971.6	2957.5
15°	2828.9	2837.7	2767.3	2781.4	2751.4
17.5°	2640.5	2672.2	2614.0	2631.7	2599.9
20°	2499.5	2526.0	2527.7	2499.5	2399.1
22.5°	2388.6	2415.0	2436.1	2351.6	2341.0
25°	2286.4	2316.3	2332.2	2275.8	2282.9
27.5°	2184.2	2217.7	2217.7	2230.0	2214.2
30°	2110.3	2124.3	2101.4	2147.2	2133.2
32.5°	2022.2	2027.5	2008.1	2041.6	1992.2
35°	1937.6	1941.2	1937.6	1939.4	1937.6
37.5°	1856.6	1847.8	1863.6	1853.1	1886.5
40°	1766.8	1766.8	1773.8	1791.4	1817.8
42.5°	1684.0	1691.0	1682.2	1731.5	1742.1
45°	1590.6	1602.9	1588.9	1654.0	1638.2
47.5°	1506.1	1511.4	1507.8	1551.9	1555.4
50°	1414.5	1421.5	1425.0	1463.8	1469.1
52.5°	1338.7	1337.0	1324.6	1381.0	1389.8
55°	1248.9	1247.1	1243.6	1287.6	1300.0
57.5°	1157.3	1159.1	1167.9	1192.5	1222.5
60°	1074.5	1065.7	1072.7	1102.7	1127.3
62.5°	990.0	974.1	958.2	1007.6	1030.5
65°	896.6	877.2	868.4	908.9	947.7
67.5°	810.3	778.6	773.3	801.5	847.3
70°	711.6	672.9	671.1	692.3	746.9
72.5°	602.4	569.0	560.2	588.3	637.7
75°	498.5	461.5	450.9	477.4	523.2
77.5°	385.8	355.8	348.8	362.9	399.9
80°	271.3	253.7	246.6	251.9	278.3
82.5°	170.9	158.5	155.0	153.2	167.3
85°	86.3	77.5	77.5	72.2	75.7
87.5°	26.4	24.7	22.9	17.6	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)