

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: P485792

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5LO-50-120-EDD-90**

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: P485792
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-LD4-5LO-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

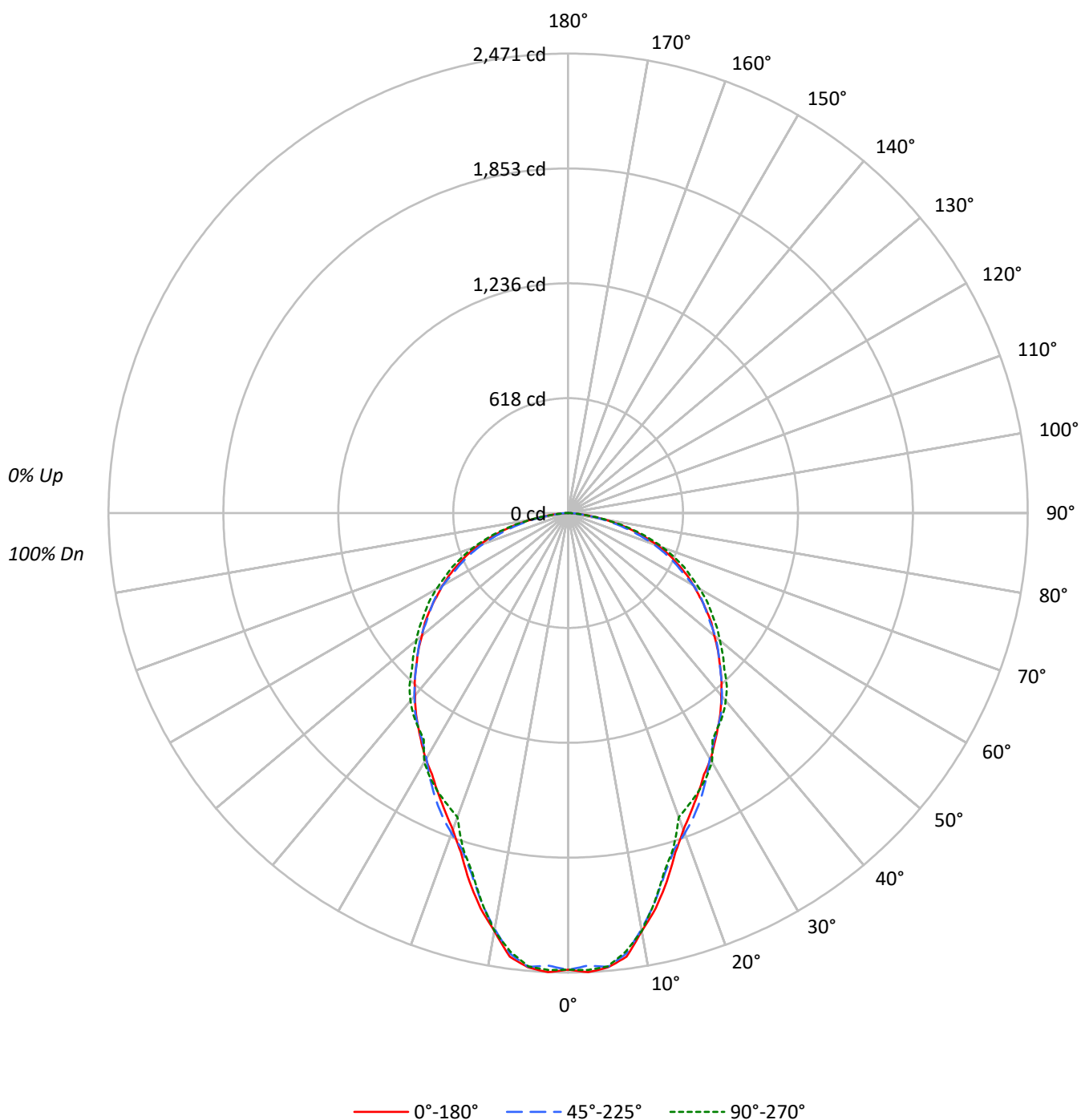
Lumens per Lamp: N/A
Luminaire Lumens: 5252.0 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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°	6609	6609	6609
5°	6627	6616	6610
10°	6236	6208	6232
15°	5714	5589	5557
20°	5190	5248	4981
25°	4922	5020	4914
30°	4754	4734	4805
35°	4615	4615	4615
40°	4500	4517	4630
45°	4389	4384	4520
50°	4293	4325	4459
55°	4248	4230	4422
60°	4193	4186	4399
65°	4139	4009	4375
70°	4059	3829	4260
75°	3758	3399	3944
80°	3048	2771	3127
85°	1933	1735	1695



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.1	4.3
10°-20°	570.2	10.9
20°-30°	770.1	14.7
30°-40°	881.9	16.8
40°-50°	903.3	17.2
50°-60°	819.6	15.6
60°-70°	639.7	12.2
70°-80°	362.8	6.9
80°-90°	76.2	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°	1568.4	29.9
0°-40°	2450.3	46.7
0°-60°	4173.3	79.5
0°-90°	5252.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5252.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2456	2456	2456	2456	2456	
5°	2453	2425	2449	2454	2447	229
15°	2051	2057	2006	2016	1995	573
25°	1658	1679	1691	1650	1655	765
35°	1405	1407	1405	1406	1405	880
45°	1153	1162	1152	1199	1188	892
55°	905	904	902	934	942	809
65°	650	636	630	659	687	644
75°	361	335	327	346	379	378
85°	63	56	56	52	55	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2455.8	2455.8	2455.8	2455.8	2455.8
2.5°	2471.1	2452.0	2435.4	2462.2	2459.6
5°	2453.2	2425.1	2449.4	2454.5	2446.9
7.5°	2406.0	2388.1	2389.4	2379.2	2377.9
10°	2282.1	2292.3	2271.9	2289.8	2280.8
12.5°	2176.1	2182.5	2146.7	2154.4	2144.2
15°	2051.0	2057.3	2006.3	2016.5	1994.8
17.5°	1914.3	1937.3	1895.2	1907.9	1884.9
20°	1812.2	1831.3	1832.6	1812.2	1739.4
22.5°	1731.7	1750.9	1766.2	1704.9	1697.2
25°	1657.6	1679.3	1690.8	1650.0	1655.1
27.5°	1583.6	1607.8	1607.8	1616.8	1605.3
30°	1529.9	1540.1	1523.5	1556.7	1546.5
32.5°	1466.1	1469.9	1455.9	1480.1	1444.4
35°	1404.8	1407.3	1404.8	1406.0	1404.8
37.5°	1346.0	1339.6	1351.1	1343.5	1367.7
40°	1280.9	1280.9	1286.0	1298.8	1317.9
42.5°	1220.9	1226.0	1219.6	1255.4	1263.0
45°	1153.2	1162.1	1151.9	1199.2	1187.7
47.5°	1091.9	1095.7	1093.2	1125.1	1127.6
50°	1025.5	1030.6	1033.1	1061.2	1065.1
52.5°	970.6	969.3	960.4	1001.2	1007.6
55°	905.4	904.2	901.6	933.5	942.5
57.5°	839.0	840.3	846.7	864.6	886.3
60°	779.0	772.6	777.7	799.4	817.3
62.5°	717.7	706.2	694.7	730.5	747.1
65°	650.0	636.0	629.6	659.0	687.1
67.5°	587.4	564.5	560.6	581.1	614.3
70°	515.9	487.8	486.6	501.9	541.5
72.5°	436.8	412.5	406.1	426.5	462.3
75°	361.4	334.6	326.9	346.1	379.3
77.5°	279.7	258.0	252.9	263.1	289.9
80°	196.7	183.9	178.8	182.6	201.8
82.5°	123.9	114.9	112.4	111.1	121.3
85°	62.6	56.2	56.2	52.4	54.9
87.5°	19.2	17.9	16.6	12.8	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)