

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: P485734

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4HI-20-120-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: P485734
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-LD4-4HI-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

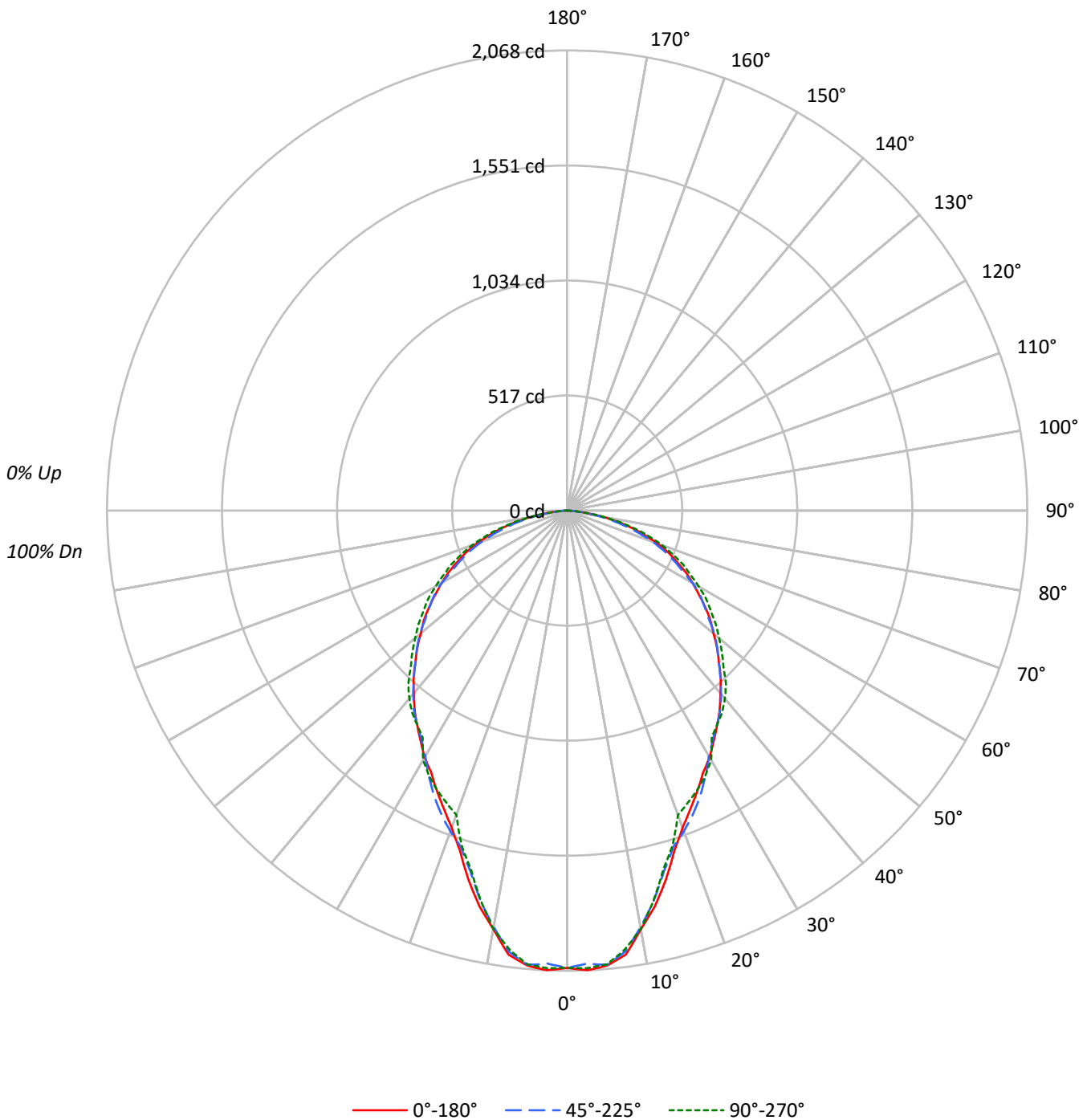
Lumens per Lamp: N/A
Luminaire Lumens: 4394.4 lumens
Efficiency: N/A
Efficacy: 49.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5529	5529	5529
5°	5545	5536	5530
10°	5218	5194	5215
15°	4781	4677	4650
20°	4342	4391	4168
25°	4118	4200	4112
30°	3978	3961	4021
35°	3861	3861	3861
40°	3765	3780	3874
45°	3672	3668	3782
50°	3592	3619	3731
55°	3554	3539	3700
60°	3508	3502	3681
65°	3463	3354	3661
70°	3397	3203	3565
75°	3144	2844	3300
80°	2551	2318	2616
85°	1618	1451	1417



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.8	4.3
10°-20°	477.1	10.9
20°-30°	644.4	14.7
30°-40°	737.9	16.8
40°-50°	755.8	17.2
50°-60°	685.8	15.6
60°-70°	535.3	12.2
70°-80°	303.6	6.9
80°-90°	63.7	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°	1312.3	29.9
0°-40°	2050.2	46.7
0°-60°	3491.8	79.5
0°-90°	4394.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4394.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2055	2055	2055	2055	2055	
5°	2053	2029	2049	2054	2047	192
15°	1716	1721	1679	1687	1669	480
25°	1387	1405	1415	1380	1385	640
35°	1175	1178	1175	1176	1175	736
45°	965	972	964	1003	994	746
55°	758	756	754	781	789	677
65°	544	532	527	551	575	539
75°	302	280	274	290	317	316
85°	52	47	47	44	46	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2054.8	2054.8	2054.8	2054.8	2054.8
2.5°	2067.6	2051.6	2037.7	2060.1	2058.0
5°	2052.6	2029.1	2049.4	2053.7	2047.3
7.5°	2013.1	1998.2	1999.2	1990.7	1989.6
10°	1909.5	1918.0	1900.9	1915.9	1908.4
12.5°	1820.8	1826.1	1796.2	1802.6	1794.1
15°	1716.1	1721.4	1678.7	1687.2	1669.0
17.5°	1601.7	1621.0	1585.7	1596.4	1577.2
20°	1516.2	1532.3	1533.3	1516.2	1455.3
22.5°	1448.9	1465.0	1477.8	1426.5	1420.1
25°	1387.0	1405.1	1414.7	1380.5	1384.8
27.5°	1325.0	1345.3	1345.3	1352.8	1343.1
30°	1280.1	1288.6	1274.8	1302.5	1294.0
32.5°	1226.7	1229.9	1218.1	1238.4	1208.5
35°	1175.4	1177.5	1175.4	1176.5	1175.4
37.5°	1126.2	1120.9	1130.5	1124.1	1144.4
40°	1071.7	1071.7	1076.0	1086.7	1102.7
42.5°	1021.5	1025.8	1020.4	1050.4	1056.8
45°	964.9	972.4	963.8	1003.4	993.7
47.5°	913.6	916.8	914.7	941.4	943.5
50°	858.0	862.3	864.4	887.9	891.2
52.5°	812.1	811.0	803.5	837.7	843.1
55°	757.6	756.5	754.4	781.1	788.6
57.5°	702.0	703.1	708.4	723.4	741.6
60°	651.8	646.5	650.7	668.9	683.9
62.5°	600.5	590.9	581.3	611.2	625.1
65°	543.9	532.1	526.8	551.4	574.9
67.5°	491.5	472.3	469.1	486.2	514.0
70°	431.7	408.2	407.1	419.9	453.1
72.5°	365.4	345.1	339.8	356.9	386.8
75°	302.4	280.0	273.5	289.6	317.4
77.5°	234.0	215.8	211.6	220.1	242.6
80°	164.6	153.9	149.6	152.8	168.8
82.5°	103.6	96.2	94.0	93.0	101.5
85°	52.4	47.0	47.0	43.8	45.9
87.5°	16.0	15.0	13.9	10.7	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)