

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: P485820

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6LO-27-120-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: P485820
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-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

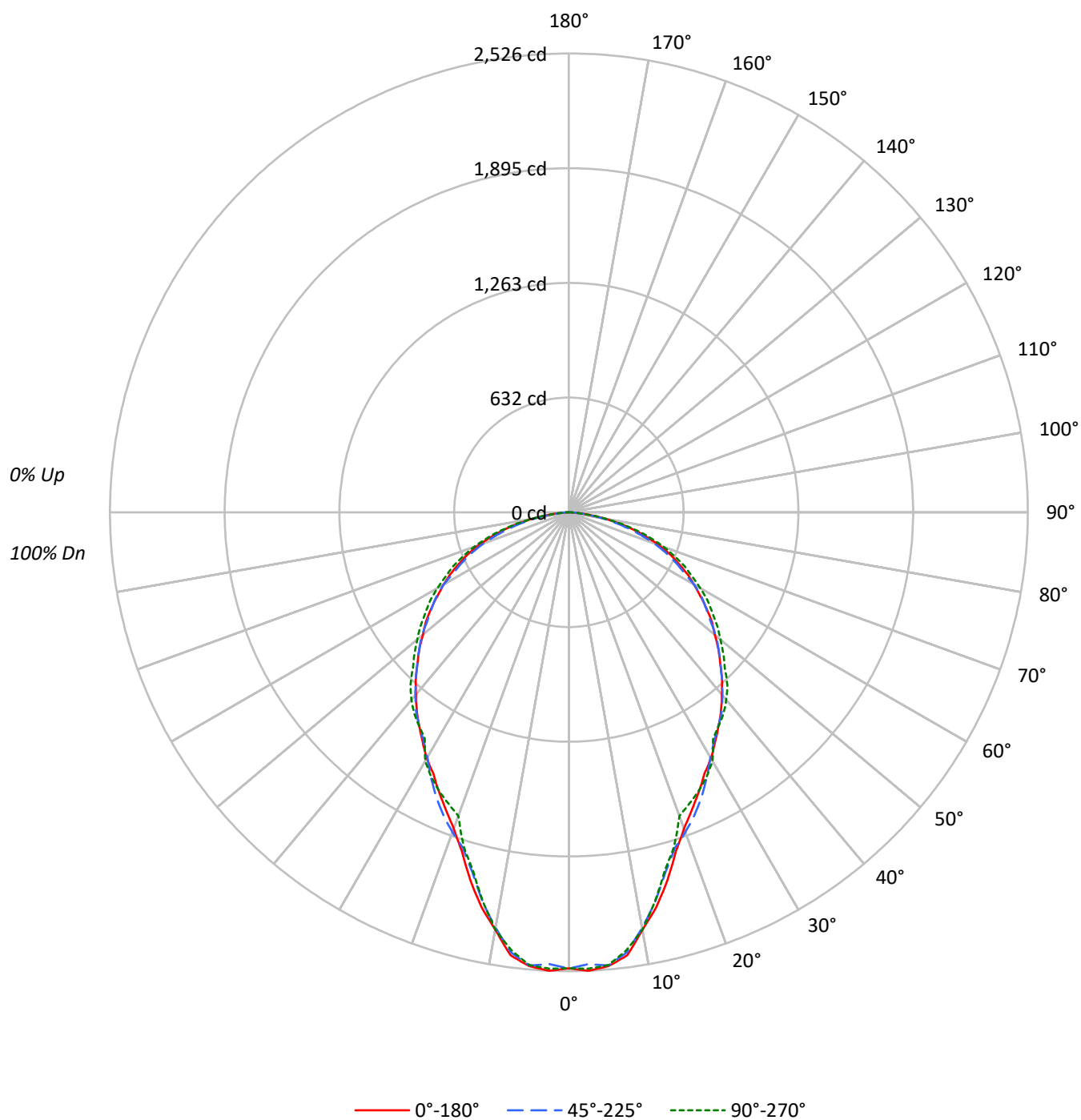
Lumens per Lamp: N/A
Luminaire Lumens: 5368.7 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6755	6755	6755
5°	6774	6763	6756
10°	6374	6346	6371
15°	5841	5713	5681
20°	5305	5365	5092
25°	5031	5132	5023
30°	4859	4839	4912
35°	4717	4717	4717
40°	4600	4618	4732
45°	4486	4481	4620
50°	4389	4421	4558
55°	4343	4324	4520
60°	4286	4279	4497
65°	4231	4098	4472
70°	4150	3913	4355
75°	3841	3475	4031
80°	3115	2833	3197
85°	1976	1772	1732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.2	4.3
10°-20°	582.9	10.9
20°-30°	787.2	14.7
30°-40°	901.5	16.8
40°-50°	923.4	17.2
50°-60°	837.9	15.6
60°-70°	653.9	12.2
70°-80°	370.9	6.9
80°-90°	77.9	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°	1603.3	29.9
0°-40°	2504.8	46.7
0°-60°	4266.0	79.5
0°-90°	5368.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5368.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2510	2510	2510	2510	2510	
5°	2508	2479	2504	2509	2501	234
15°	2096	2103	2051	2061	2039	586
25°	1694	1717	1728	1687	1692	782
35°	1436	1439	1436	1437	1436	900
45°	1179	1188	1178	1226	1214	911
55°	926	924	922	954	963	827
65°	664	650	644	674	702	659
75°	369	342	334	354	388	386
85°	64	57	57	54	56	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2510.4	2510.4	2510.4	2510.4	2510.4
2.5°	2526.0	2506.4	2489.5	2516.9	2514.3
5°	2507.7	2479.0	2503.8	2509.1	2501.2
7.5°	2459.4	2441.2	2442.5	2432.0	2430.7
10°	2332.8	2343.3	2322.4	2340.7	2331.5
12.5°	2224.5	2231.0	2194.4	2202.3	2191.8
15°	2096.5	2103.1	2050.8	2061.3	2039.1
17.5°	1956.9	1980.4	1937.3	1950.3	1926.8
20°	1852.4	1872.0	1873.3	1852.4	1778.0
22.5°	1770.2	1789.8	1805.4	1742.8	1734.9
25°	1694.5	1716.7	1728.4	1686.6	1691.8
27.5°	1618.7	1643.5	1643.5	1652.7	1640.9
30°	1563.9	1574.4	1557.4	1591.3	1580.9
32.5°	1498.6	1502.6	1488.2	1513.0	1476.5
35°	1436.0	1438.6	1436.0	1437.3	1436.0
37.5°	1375.9	1369.4	1381.2	1373.3	1398.1
40°	1309.4	1309.4	1314.6	1327.6	1347.2
42.5°	1248.0	1253.2	1246.7	1283.2	1291.1
45°	1178.8	1187.9	1177.5	1225.8	1214.1
47.5°	1116.2	1120.1	1117.5	1150.1	1152.7
50°	1048.3	1053.5	1056.1	1084.8	1088.7
52.5°	992.1	990.8	981.7	1023.5	1030.0
55°	925.6	924.3	921.6	954.3	963.4
57.5°	857.7	859.0	865.5	883.8	906.0
60°	796.3	789.8	795.0	817.2	835.5
62.5°	733.7	721.9	710.2	746.7	763.7
65°	664.5	650.1	643.6	673.6	702.3
67.5°	600.5	577.0	573.1	594.0	627.9
70°	527.4	498.7	497.4	513.0	553.5
72.5°	446.5	421.7	415.1	436.0	472.6
75°	369.4	342.0	334.2	353.8	387.7
77.5°	285.9	263.7	258.5	268.9	296.3
80°	201.0	188.0	182.8	186.7	206.3
82.5°	126.6	117.5	114.9	113.6	124.0
85°	64.0	57.4	57.4	53.5	56.1
87.5°	19.6	18.3	17.0	13.1	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)