

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: P485789

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5LO-35-120-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: P485789
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-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

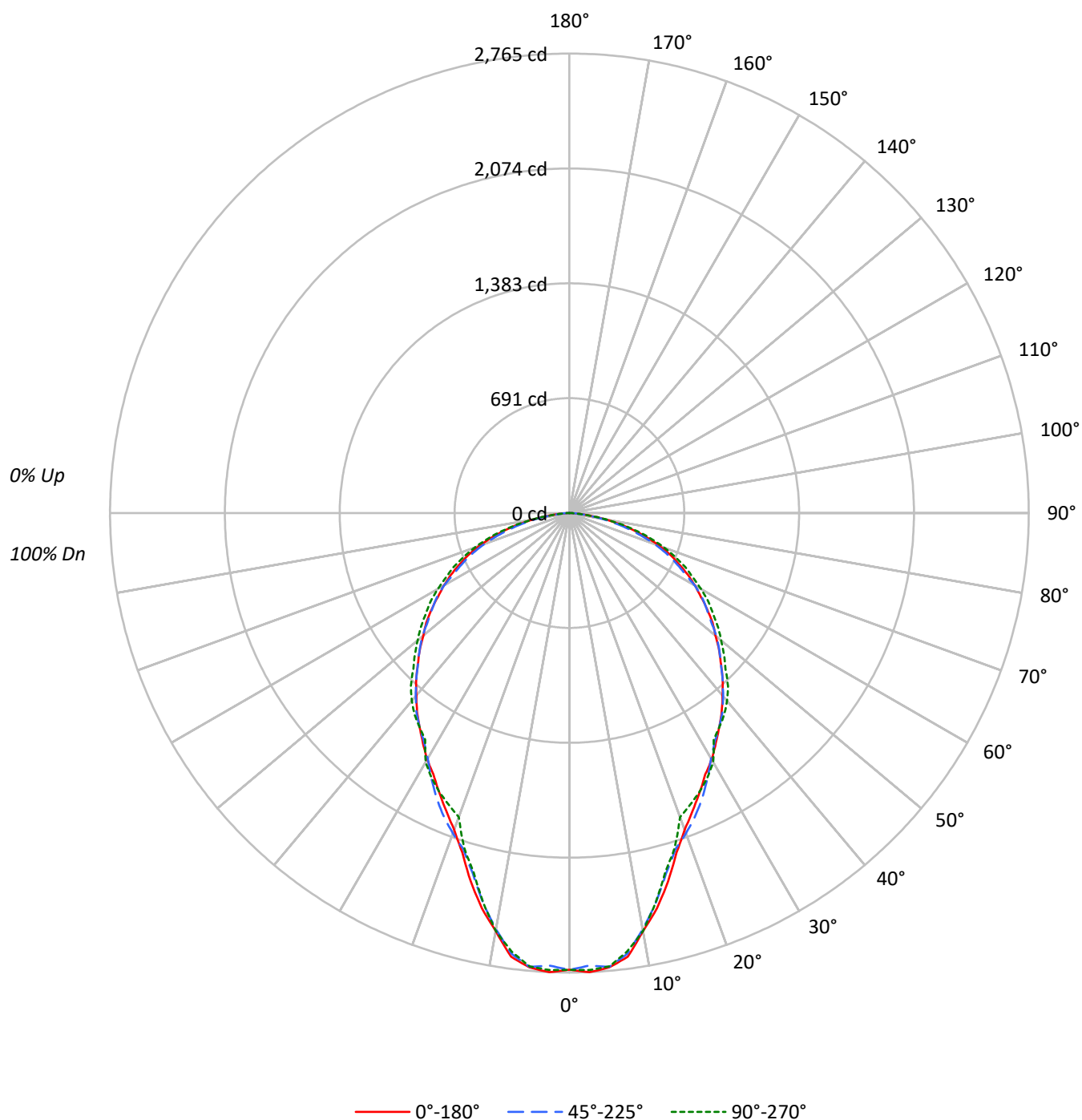
Lumens per Lamp: N/A
Luminaire Lumens: 5877.3 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7395	7395	7395
5°	7416	7404	7397
10°	6978	6947	6974
15°	6394	6255	6219
20°	5807	5873	5574
25°	5508	5618	5499
30°	5320	5298	5378
35°	5164	5164	5164
40°	5035	5055	5181
45°	4911	4906	5058
50°	4804	4840	4990
55°	4754	4734	4948
60°	4692	4684	4922
65°	4632	4486	4896
70°	4543	4284	4767
75°	4205	3804	4413
80°	3411	3101	3499
85°	2161	1942	1899



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.2	4.3
10°-20°	638.1	10.9
20°-30°	861.8	14.7
30°-40°	986.9	16.8
40°-50°	1010.9	17.2
50°-60°	917.2	15.6
60°-70°	715.9	12.2
70°-80°	406.0	6.9
80°-90°	85.2	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°	1755.2	29.9
0°-40°	2742.0	46.7
0°-60°	4670.2	79.5
0°-90°	5877.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5877.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2748	2748	2748	2748	2748	
5°	2745	2714	2741	2747	2738	256
15°	2295	2302	2245	2257	2232	641
25°	1855	1879	1892	1846	1852	856
35°	1572	1575	1572	1573	1572	985
45°	1290	1300	1289	1342	1329	998
55°	1013	1012	1009	1045	1055	905
65°	727	712	705	737	769	721
75°	404	374	366	387	424	423
85°	70	63	63	59	62	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2748.2	2748.2	2748.2	2748.2	2748.2
2.5°	2765.3	2743.9	2725.3	2755.3	2752.5
5°	2745.3	2713.9	2741.0	2746.7	2738.2
7.5°	2692.4	2672.4	2673.9	2662.4	2661.0
10°	2553.8	2565.3	2542.4	2562.4	2552.4
12.5°	2435.2	2442.3	2402.3	2410.9	2399.5
15°	2295.1	2302.3	2245.1	2256.6	2232.3
17.5°	2142.2	2168.0	2120.8	2135.1	2109.4
20°	2027.9	2049.3	2050.8	2027.9	1946.4
22.5°	1937.9	1959.3	1976.5	1907.9	1899.3
25°	1855.0	1879.3	1892.1	1846.4	1852.1
27.5°	1772.1	1799.2	1799.2	1809.3	1796.4
30°	1712.1	1723.5	1704.9	1742.1	1730.7
32.5°	1640.6	1644.9	1629.2	1656.3	1616.3
35°	1572.0	1574.9	1572.0	1573.4	1572.0
37.5°	1506.3	1499.1	1512.0	1503.4	1530.6
40°	1433.4	1433.4	1439.1	1453.4	1474.8
42.5°	1366.2	1371.9	1364.8	1404.8	1413.4
45°	1290.5	1300.5	1289.1	1341.9	1329.1
47.5°	1221.9	1226.2	1223.3	1259.0	1261.9
50°	1147.6	1153.3	1156.1	1187.6	1191.9
52.5°	1086.1	1084.7	1074.7	1120.4	1127.6
55°	1013.2	1011.8	1009.0	1044.7	1054.7
57.5°	938.9	940.4	947.5	967.5	991.8
60°	871.8	864.6	870.3	894.6	914.6
62.5°	803.2	790.3	777.4	817.5	836.0
65°	727.4	711.7	704.6	737.4	768.9
67.5°	657.4	631.7	627.4	650.2	687.4
70°	577.4	545.9	544.5	561.6	605.9
72.5°	488.8	461.6	454.5	477.3	517.3
75°	404.4	374.4	365.9	387.3	424.4
77.5°	313.0	288.7	283.0	294.4	324.4
80°	220.1	205.8	200.1	204.4	225.8
82.5°	138.6	128.6	125.8	124.3	135.8
85°	70.0	62.9	62.9	58.6	61.5
87.5°	21.4	20.0	18.6	14.3	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)