

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: P485662

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2HI-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: P485662
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-LD4-2HI-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

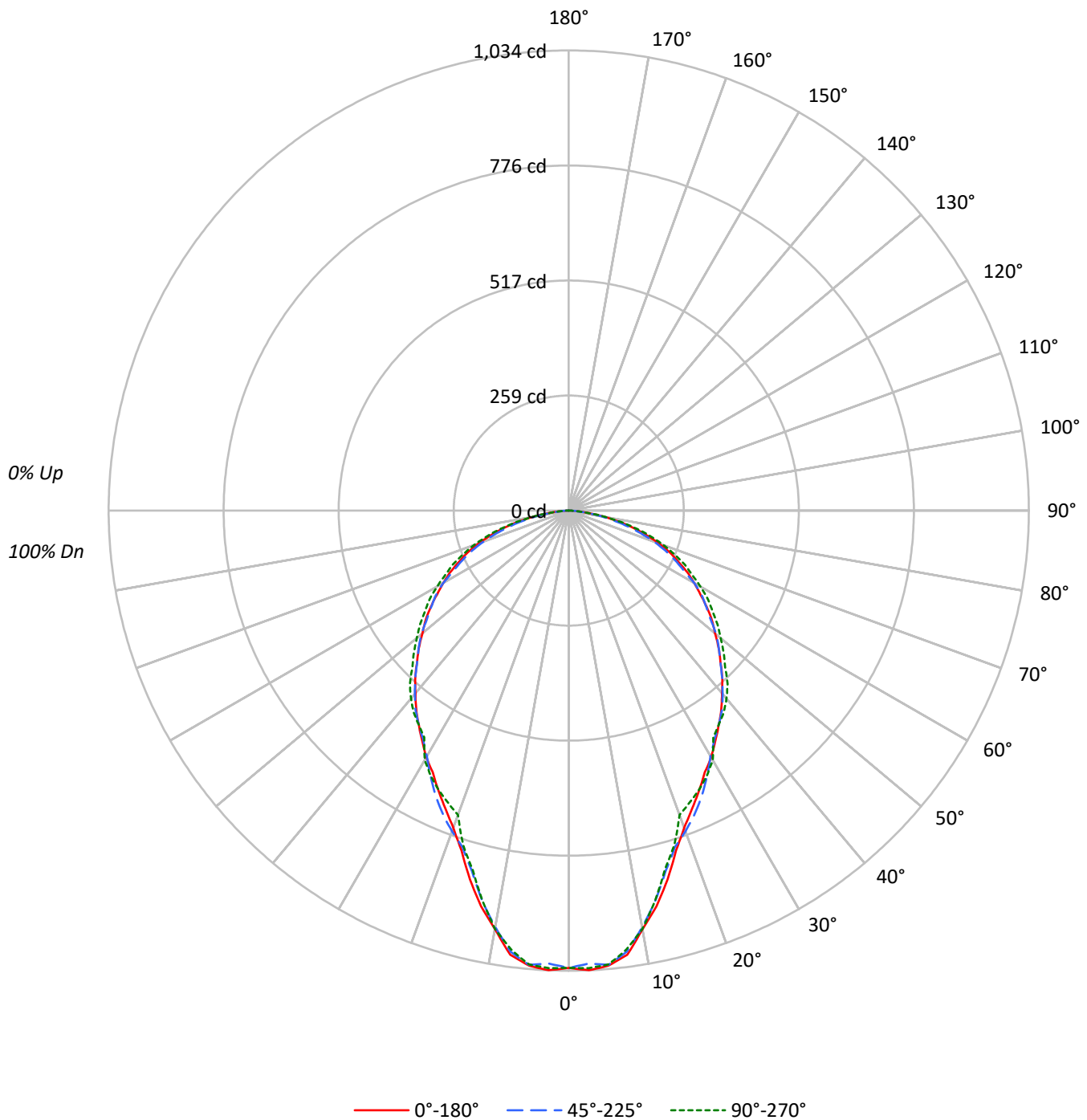
Lumens per Lamp: N/A
Luminaire Lumens: 2197.2 lumens
Efficiency: N/A
Efficacy: 49.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	2765	2765	2765
5°	2772	2768	2765
10°	2609	2597	2607
15°	2390	2338	2325
20°	2171	2196	2084
25°	2059	2100	2056
30°	1989	1981	2010
35°	1931	1931	1931
40°	1883	1890	1937
45°	1836	1834	1891
50°	1796	1809	1865
55°	1777	1770	1850
60°	1754	1751	1840
65°	1731	1677	1830
70°	1698	1602	1782
75°	1572	1422	1650
80°	1275	1159	1308
85°	809	726	710



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.4	4.3
10°-20°	238.6	10.9
20°-30°	322.2	14.7
30°-40°	368.9	16.8
40°-50°	377.9	17.2
50°-60°	342.9	15.6
60°-70°	267.6	12.2
70°-80°	151.8	6.9
80°-90°	31.9	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°	656.2	29.9
0°-40°	1025.1	46.7
0°-60°	1745.9	79.5
0°-90°	2197.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2197.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1027	1027	1027	1027	1027	
5°	1026	1015	1025	1027	1024	96
15°	858	861	839	844	834	240
25°	694	703	707	690	692	320
35°	588	589	588	588	588	368
45°	482	486	482	502	497	373
55°	379	378	377	390	394	339
65°	272	266	263	276	287	270
75°	151	140	137	145	159	158
85°	26	24	24	22	23	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1027.4	1027.4	1027.4	1027.4	1027.4
2.5°	1033.8	1025.8	1018.8	1030.1	1029.0
5°	1026.3	1014.6	1024.7	1026.9	1023.7
7.5°	1006.6	999.1	999.6	995.3	994.8
10°	954.7	959.0	950.5	957.9	954.2
12.5°	910.4	913.1	898.1	901.3	897.0
15°	858.0	860.7	839.3	843.6	834.5
17.5°	800.9	810.5	792.9	798.2	788.6
20°	758.1	766.1	766.7	758.1	727.7
22.5°	724.5	732.5	738.9	713.2	710.0
25°	693.5	702.6	707.4	690.3	692.4
27.5°	662.5	672.6	672.6	676.4	671.6
30°	640.1	644.3	637.4	651.3	647.0
32.5°	613.3	614.9	609.1	619.2	604.3
35°	587.7	588.8	587.7	588.2	587.7
37.5°	563.1	560.4	565.3	562.0	572.2
40°	535.9	535.9	538.0	543.3	551.4
42.5°	510.8	512.9	510.2	525.2	528.4
45°	482.4	486.2	481.9	501.7	496.9
47.5°	456.8	458.4	457.3	470.7	471.8
50°	429.0	431.2	432.2	444.0	445.6
52.5°	406.0	405.5	401.8	418.9	421.5
55°	378.8	378.3	377.2	390.5	394.3
57.5°	351.0	351.5	354.2	361.7	370.8
60°	325.9	323.2	325.4	334.5	341.9
62.5°	300.3	295.4	290.6	305.6	312.5
65°	271.9	266.1	263.4	275.7	287.4
67.5°	245.8	236.1	234.5	243.1	257.0
70°	215.8	204.1	203.6	210.0	226.5
72.5°	182.7	172.6	169.9	178.4	193.4
75°	151.2	140.0	136.8	144.8	158.7
77.5°	117.0	107.9	105.8	110.1	121.3
80°	82.3	76.9	74.8	76.4	84.4
82.5°	51.8	48.1	47.0	46.5	50.8
85°	26.2	23.5	23.5	21.9	23.0
87.5°	8.0	7.5	6.9	5.3	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)