

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: P485684

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2LO-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: P485684
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-LD4-2LO-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

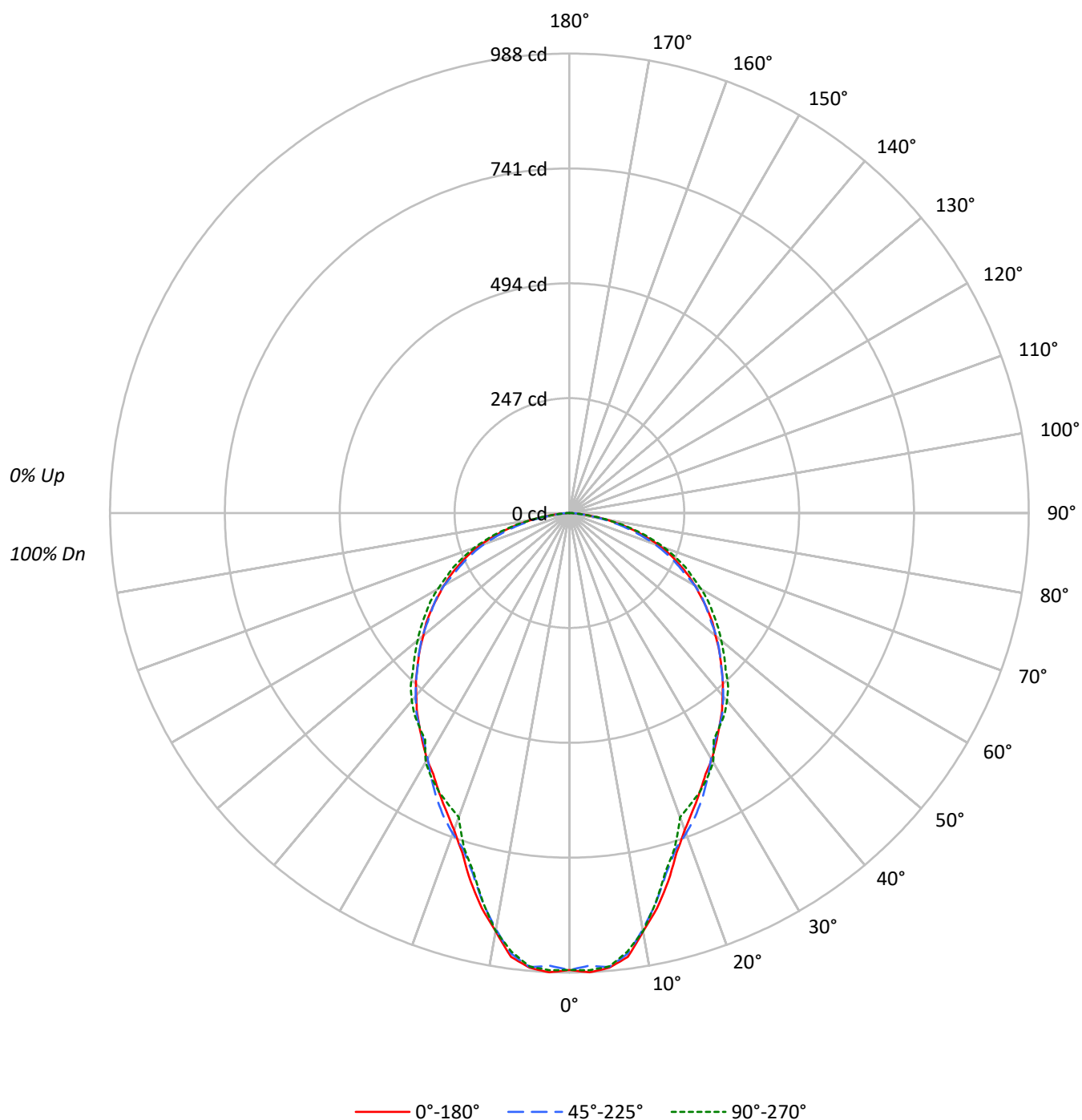
Lumens per Lamp: N/A
Luminaire Lumens: 2100.8 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2643	2643	2643
5°	2651	2647	2644
10°	2494	2483	2493
15°	2286	2236	2223
20°	2076	2099	1992
25°	1969	2008	1966
30°	1902	1894	1922
35°	1846	1846	1846
40°	1800	1807	1852
45°	1756	1754	1808
50°	1717	1730	1783
55°	1699	1692	1769
60°	1677	1674	1759
65°	1656	1603	1750
70°	1624	1531	1704
75°	1503	1360	1577
80°	1220	1108	1251
85°	772	695	679



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.2	4.3
10°-20°	228.1	10.9
20°-30°	308.0	14.7
30°-40°	352.8	16.8
40°-50°	361.3	17.2
50°-60°	327.9	15.6
60°-70°	255.9	12.2
70°-80°	145.1	6.9
80°-90°	30.5	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°	627.4	29.9
0°-40°	980.1	46.7
0°-60°	1669.3	79.5
0°-90°	2100.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2100.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	981	970	980	982	979	92
15°	820	823	802	807	798	229
25°	663	672	676	660	662	306
35°	562	563	562	562	562	352
45°	461	465	461	480	475	357
55°	362	362	361	373	377	324
65°	260	254	252	264	275	258
75°	145	134	131	138	152	151
85°	25	22	22	21	22	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	982.3	982.3	982.3	982.3	982.3
2.5°	988.4	980.8	974.1	984.9	983.8
5°	981.3	970.1	979.8	981.8	978.7
7.5°	962.4	955.2	955.8	951.7	951.2
10°	912.8	916.9	908.8	915.9	912.3
12.5°	870.4	873.0	858.7	861.8	857.7
15°	820.4	822.9	802.5	806.6	797.9
17.5°	765.7	774.9	758.1	763.2	754.0
20°	724.9	732.5	733.0	724.9	695.7
22.5°	692.7	700.3	706.5	682.0	678.9
25°	663.1	671.7	676.3	660.0	662.0
27.5°	633.4	643.1	643.1	646.7	642.1
30°	612.0	616.1	609.4	622.7	618.6
32.5°	586.4	588.0	582.3	592.0	577.7
35°	561.9	562.9	561.9	562.4	561.9
37.5°	538.4	535.9	540.5	537.4	547.1
40°	512.4	512.4	514.4	519.5	527.2
42.5°	488.3	490.4	487.8	502.1	505.2
45°	461.3	464.9	460.8	479.7	475.1
47.5°	436.8	438.3	437.3	450.0	451.1
50°	410.2	412.2	413.3	424.5	426.0
52.5°	388.2	387.7	384.1	400.5	403.0
55°	362.2	361.7	360.6	373.4	377.0
57.5°	335.6	336.1	338.7	345.8	354.5
60°	311.6	309.0	311.1	319.8	326.9
62.5°	287.1	282.5	277.9	292.2	298.8
65°	260.0	254.4	251.8	263.6	274.8
67.5°	235.0	225.8	224.3	232.4	245.7
70°	206.4	195.1	194.6	200.8	216.6
72.5°	174.7	165.0	162.4	170.6	184.9
75°	144.6	133.8	130.8	138.4	151.7
77.5°	111.9	103.2	101.1	105.2	116.0
80°	78.7	73.6	71.5	73.0	80.7
82.5°	49.6	46.0	45.0	44.4	48.5
85°	25.0	22.5	22.5	20.9	22.0
87.5°	7.7	7.2	6.6	5.1	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)