

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: P485646

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1LO-40-120-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: P485646
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-LD4-1LO-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

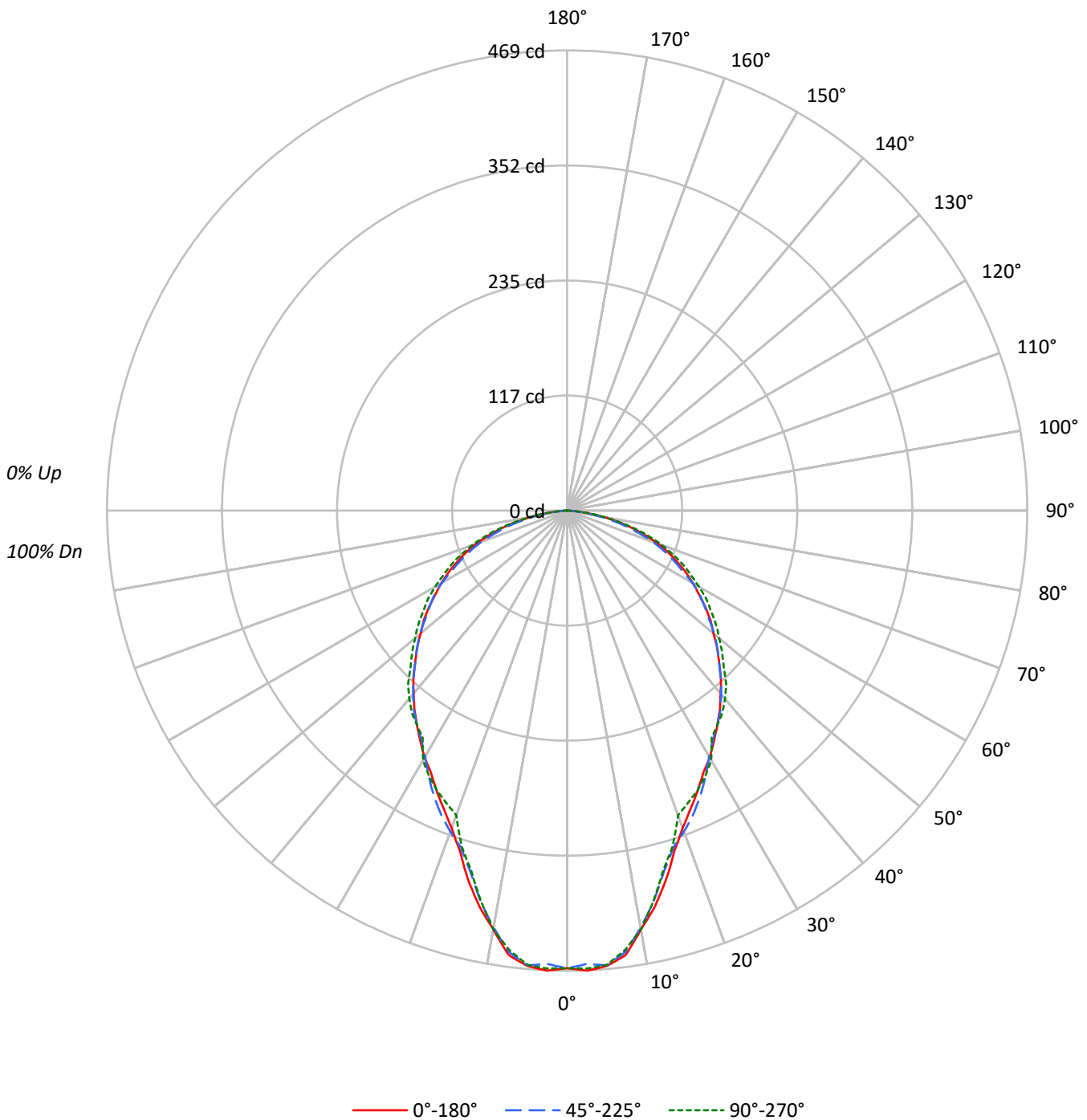
Lumens per Lamp: N/A
Luminaire Lumens: 997.5 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	1255	1255	1255
5°	1259	1257	1255
10°	1184	1179	1184
15°	1085	1061	1056
20°	986	997	946
25°	935	953	933
30°	903	899	913
35°	876	876	876
40°	855	858	879
45°	833	833	859
50°	816	821	847
55°	807	803	840
60°	797	795	835
65°	786	762	831
70°	771	727	809
75°	713	646	749
80°	580	527	594
85°	367	330	321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	4.3
10°-20°	108.3	10.9
20°-30°	146.3	14.7
30°-40°	167.5	16.8
40°-50°	171.6	17.2
50°-60°	155.7	15.6
60°-70°	121.5	12.2
70°-80°	68.9	6.9
80°-90°	14.5	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°	297.9	29.9
0°-40°	465.4	46.7
0°-60°	792.6	79.5
0°-90°	997.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	997.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	466	466	466	466	466	
5°	466	461	465	466	465	44
15°	390	391	381	383	379	109
25°	315	319	321	313	314	145
35°	267	267	267	267	267	167
45°	219	221	219	228	226	169
55°	172	172	171	177	179	154
65°	124	121	120	125	130	122
75°	69	64	62	66	72	72
85°	12	11	11	10	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	466.4	466.4	466.4	466.4	466.4
2.5°	469.3	465.7	462.5	467.6	467.2
5°	465.9	460.6	465.2	466.2	464.7
7.5°	457.0	453.6	453.8	451.9	451.6
10°	433.4	435.4	431.5	434.9	433.2
12.5°	413.3	414.5	407.7	409.2	407.2
15°	389.5	390.7	381.0	383.0	378.9
17.5°	363.6	367.9	359.9	362.4	358.0
20°	344.2	347.8	348.1	344.2	330.4
22.5°	328.9	332.5	335.4	323.8	322.3
25°	314.8	319.0	321.1	313.4	314.3
27.5°	300.8	305.4	305.4	307.1	304.9
30°	290.6	292.5	289.4	295.7	293.7
32.5°	278.4	279.2	276.5	281.1	274.3
35°	266.8	267.3	266.8	267.0	266.8
37.5°	255.6	254.4	256.6	255.2	259.8
40°	243.3	243.3	244.2	246.7	250.3
42.5°	231.9	232.8	231.6	238.4	239.9
45°	219.0	220.7	218.8	227.8	225.6
47.5°	207.4	208.1	207.6	213.7	214.2
50°	194.8	195.7	196.2	201.6	202.3
52.5°	184.3	184.1	182.4	190.2	191.4
55°	172.0	171.7	171.2	177.3	179.0
57.5°	159.4	159.6	160.8	164.2	168.3
60°	148.0	146.7	147.7	151.8	155.2
62.5°	136.3	134.1	131.9	138.7	141.9
65°	123.5	120.8	119.6	125.2	130.5
67.5°	111.6	107.2	106.5	110.4	116.7
70°	98.0	92.7	92.4	95.3	102.8
72.5°	83.0	78.3	77.1	81.0	87.8
75°	68.6	63.5	62.1	65.7	72.0
77.5°	53.1	49.0	48.0	50.0	55.1
80°	37.4	34.9	34.0	34.7	38.3
82.5°	23.5	21.8	21.3	21.1	23.0
85°	11.9	10.7	10.7	9.9	10.4
87.5°	3.6	3.4	3.2	2.4	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)