

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: P485645

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1LO-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: P485645
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-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

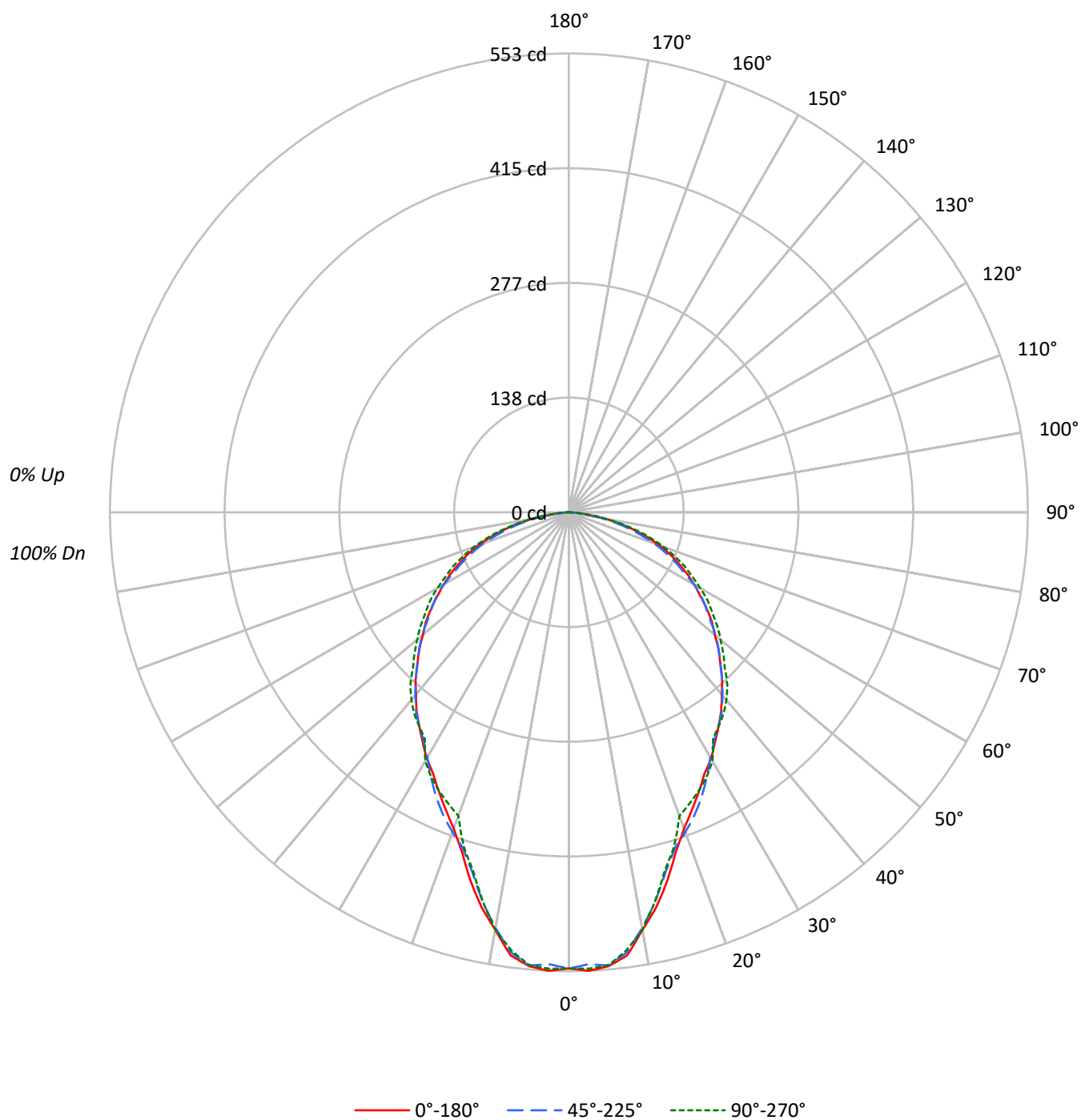
Lumens per Lamp: N/A
Luminaire Lumens: 1175.5 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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				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°	1479	1479	1479
5°	1483	1481	1479
10°	1396	1389	1395
15°	1279	1251	1244
20°	1162	1175	1115
25°	1102	1124	1100
30°	1064	1060	1075
35°	1033	1033	1033
40°	1007	1011	1036
45°	982	981	1012
50°	961	968	998
55°	951	947	989
60°	939	937	984
65°	926	897	979
70°	909	857	954
75°	841	761	883
80°	682	620	700
85°	432	389	380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.1	4.3
10°-20°	127.6	10.9
20°-30°	172.4	14.7
30°-40°	197.4	16.8
40°-50°	202.2	17.2
50°-60°	183.4	15.6
60°-70°	143.2	12.2
70°-80°	81.2	6.9
80°-90°	17.1	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°	351.1	29.9
0°-40°	548.4	46.7
0°-60°	934.1	79.5
0°-90°	1175.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1175.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	549	543	548	549	548	51
15°	459	460	449	451	446	128
25°	371	376	378	369	370	171
35°	314	315	314	315	314	197
45°	258	260	258	268	266	200
55°	203	202	202	209	211	181
65°	146	142	141	148	154	144
75°	81	75	73	78	85	85
85°	14	13	13	12	12	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	549.7	549.7	549.7	549.7	549.7
2.5°	553.1	548.8	545.1	551.1	550.5
5°	549.1	542.8	548.2	549.4	547.7
7.5°	538.5	534.5	534.8	532.5	532.2
10°	510.8	513.1	508.5	512.5	510.5
12.5°	487.1	488.5	480.5	482.2	479.9
15°	459.0	460.5	449.0	451.3	446.5
17.5°	428.5	433.6	424.2	427.0	421.9
20°	405.6	409.9	410.2	405.6	389.3
22.5°	387.6	391.9	395.3	381.6	379.9
25°	371.0	375.9	378.4	369.3	370.4
27.5°	354.4	359.9	359.9	361.9	359.3
30°	342.4	344.7	341.0	348.4	346.1
32.5°	328.1	329.0	325.8	331.3	323.3
35°	314.4	315.0	314.4	314.7	314.4
37.5°	301.3	299.8	302.4	300.7	306.1
40°	286.7	286.7	287.8	290.7	295.0
42.5°	273.3	274.4	273.0	281.0	282.7
45°	258.1	260.1	257.8	268.4	265.8
47.5°	244.4	245.2	244.7	251.8	252.4
50°	229.5	230.7	231.2	237.5	238.4
52.5°	217.2	216.9	214.9	224.1	225.5
55°	202.7	202.4	201.8	208.9	210.9
57.5°	187.8	188.1	189.5	193.5	198.4
60°	174.4	172.9	174.1	178.9	182.9
62.5°	160.6	158.1	155.5	163.5	167.2
65°	145.5	142.3	140.9	147.5	153.8
67.5°	131.5	126.3	125.5	130.1	137.5
70°	115.5	109.2	108.9	112.3	121.2
72.5°	97.8	92.3	90.9	95.5	103.5
75°	80.9	74.9	73.2	77.5	84.9
77.5°	62.6	57.7	56.6	58.9	64.9
80°	44.0	41.2	40.0	40.9	45.2
82.5°	27.7	25.7	25.2	24.9	27.2
85°	14.0	12.6	12.6	11.7	12.3
87.5°	4.3	4.0	3.7	2.9	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)