

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: P485660

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1STD-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: P485660
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-LD4-1STD-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

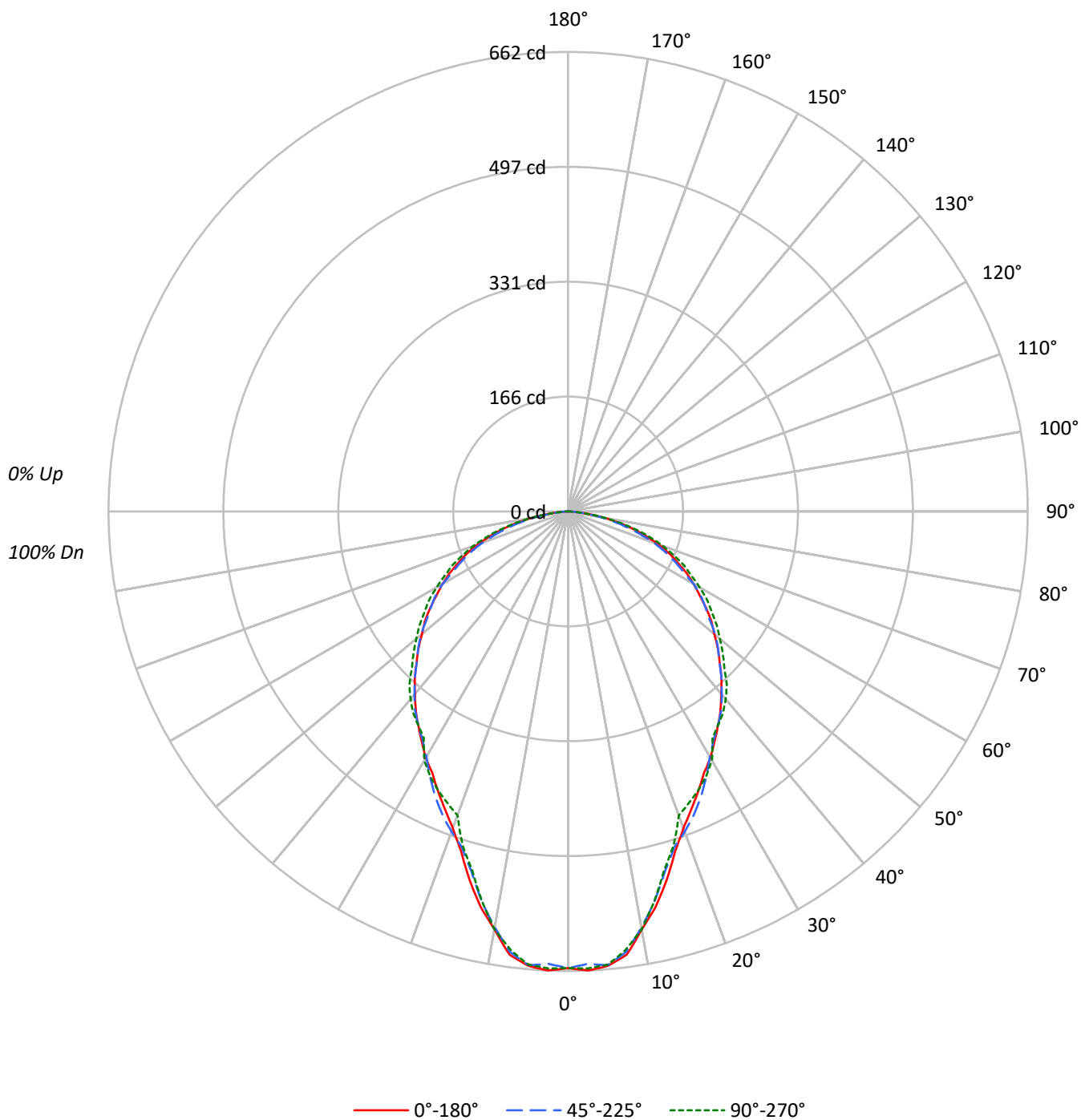
Lumens per Lamp: N/A
Luminaire Lumens: 1406.7 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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

TEST NUMBER: P485660

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1STD-50-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P485660

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1STD-50-120-EDD-90

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°	1770	1770	1770
5°	1775	1772	1770
10°	1670	1663	1669
15°	1530	1497	1489
20°	1390	1405	1334
25°	1318	1345	1316
30°	1273	1268	1287
35°	1236	1236	1236
40°	1205	1210	1240
45°	1176	1174	1211
50°	1150	1158	1194
55°	1138	1133	1184
60°	1123	1121	1178
65°	1109	1074	1172
70°	1087	1025	1141
75°	1006	911	1056
80°	817	742	837
85°	519	466	454



TEST NUMBER: P485660

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1STD-50-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	4.3
10°-20°	152.7	10.9
20°-30°	206.3	14.7
30°-40°	236.2	16.8
40°-50°	242.0	17.2
50°-60°	219.5	15.6
60°-70°	171.3	12.2
70°-80°	97.2	6.9
80°-90°	20.4	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°	420.1	29.9
0°-40°	656.3	46.7
0°-60°	1117.8	79.5
0°-90°	1406.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1406.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	658	658	658	658	658	
5°	657	650	656	657	655	61
15°	549	551	537	540	534	154
25°	444	450	453	442	443	205
35°	376	377	376	377	376	236
45°	309	311	308	321	318	239
55°	242	242	242	250	252	217
65°	174	170	169	176	184	173
75°	97	90	88	93	102	101
85°	17	15	15	14	15	22
90°	0	0	0	0	0	



TEST NUMBER: P485660

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1STD-50-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	657.8	657.8	657.8	657.8	657.8
2.5°	661.9	656.7	652.3	659.5	658.8
5°	657.1	649.6	656.1	657.4	655.4
7.5°	644.4	639.6	640.0	637.2	636.9
10°	611.2	614.0	608.5	613.3	610.9
12.5°	582.9	584.6	575.0	577.0	574.3
15°	549.3	551.0	537.4	540.1	534.3
17.5°	512.7	518.9	507.6	511.0	504.9
20°	485.4	490.5	490.8	485.4	465.9
22.5°	463.8	468.9	473.1	456.6	454.6
25°	444.0	449.8	452.9	441.9	443.3
27.5°	424.1	430.6	430.6	433.0	430.0
30°	409.8	412.5	408.1	417.0	414.2
32.5°	392.7	393.7	389.9	396.4	386.9
35°	376.3	376.9	376.3	376.6	376.3
37.5°	360.5	358.8	361.9	359.8	366.3
40°	343.1	343.1	344.4	347.9	353.0
42.5°	327.0	328.4	326.7	336.2	338.3
45°	308.9	311.3	308.5	321.2	318.1
47.5°	292.5	293.5	292.8	301.3	302.0
50°	274.7	276.0	276.7	284.2	285.3
52.5°	260.0	259.6	257.2	268.2	269.9
55°	242.5	242.2	241.5	250.0	252.4
57.5°	224.7	225.1	226.8	231.6	237.4
60°	208.7	206.9	208.3	214.1	218.9
62.5°	192.2	189.2	186.1	195.7	200.1
65°	174.1	170.3	168.6	176.5	184.0
67.5°	157.3	151.2	150.2	155.6	164.5
70°	138.2	130.7	130.3	134.4	145.0
72.5°	117.0	110.5	108.8	114.2	123.8
75°	96.8	89.6	87.6	92.7	101.6
77.5°	74.9	69.1	67.7	70.5	77.6
80°	52.7	49.3	47.9	48.9	54.0
82.5°	33.2	30.8	30.1	29.8	32.5
85°	16.8	15.1	15.1	14.0	14.7
87.5°	5.1	4.8	4.4	3.4	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)