

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: P485634

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1HI-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: P485634
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-LD4-1HI-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

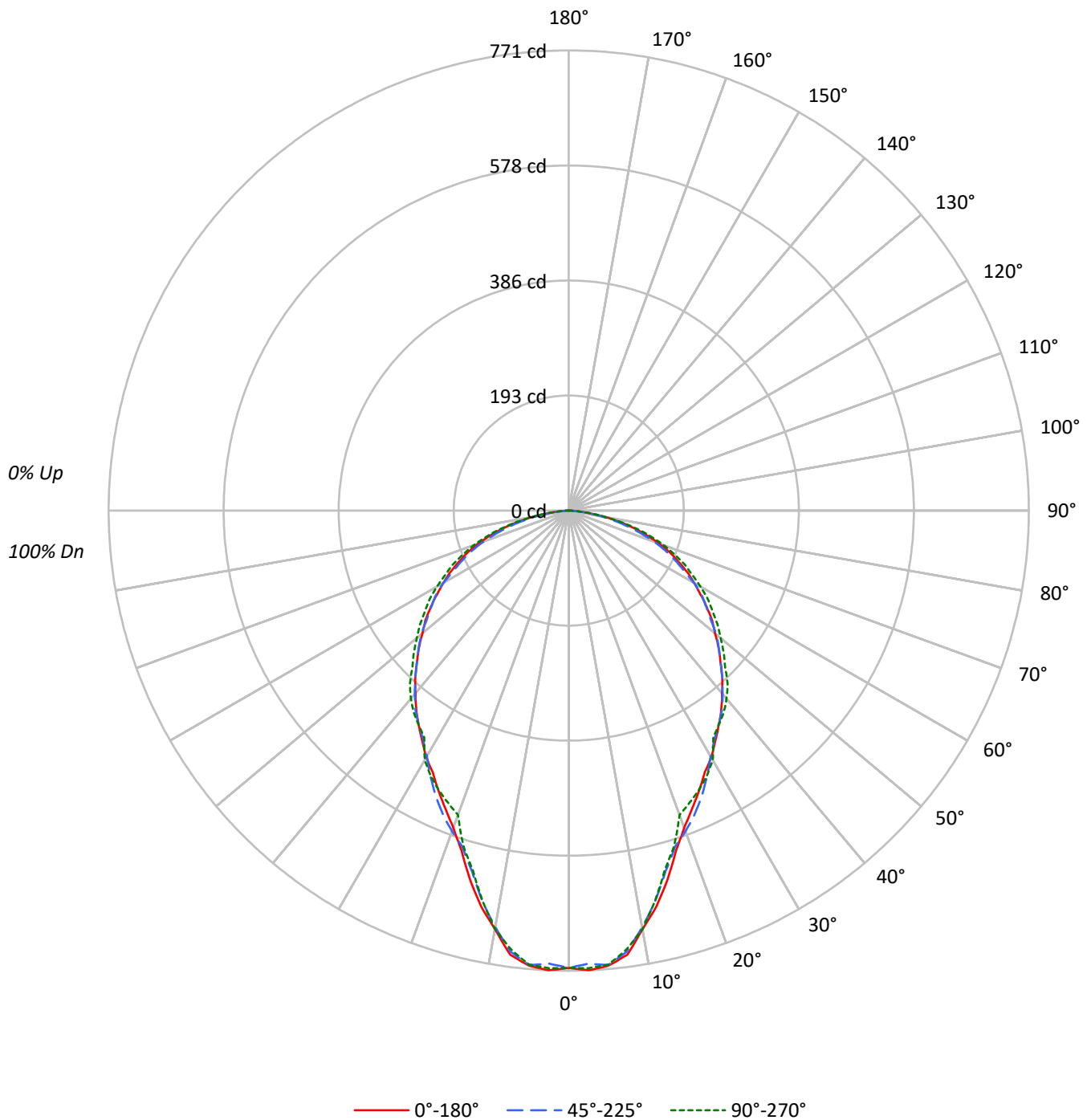
Lumens per Lamp: N/A
Luminaire Lumens: 1638.5 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 22
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: P485634

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-40-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P485634

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-40-120-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°	2062	2062	2062
5°	2068	2064	2062
10°	1946	1937	1944
15°	1783	1744	1734
20°	1619	1637	1554
25°	1535	1566	1533
30°	1483	1477	1499
35°	1440	1440	1440
40°	1404	1409	1444
45°	1369	1368	1410
50°	1339	1349	1391
55°	1325	1320	1379
60°	1308	1306	1372
65°	1291	1251	1365
70°	1267	1194	1329
75°	1173	1061	1230
80°	951	865	975
85°	602	540	528



TEST NUMBER: P485634

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-40-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.2	4.3
10°-20°	177.9	10.9
20°-30°	240.3	14.7
30°-40°	275.1	16.8
40°-50°	281.8	17.2
50°-60°	255.7	15.6
60°-70°	199.6	12.2
70°-80°	113.2	6.9
80°-90°	23.8	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°	489.3	29.9
0°-40°	764.4	46.7
0°-60°	1302.0	79.5
0°-90°	1638.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1638.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	766	766	766	766	766	
5°	765	757	764	766	763	71
15°	640	642	626	629	622	179
25°	517	524	528	515	516	239
35°	438	439	438	439	438	275
45°	360	363	359	374	370	278
55°	282	282	281	291	294	252
65°	203	198	196	206	214	201
75°	113	104	102	108	118	118
85°	20	18	18	16	17	26
90°	0	0	0	0	0	



TEST NUMBER: P485634

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-1HI-40-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	766.1	766.1	766.1	766.1	766.1
2.5°	770.9	765.0	759.8	768.1	767.3
5°	765.4	756.6	764.2	765.8	763.4
7.5°	750.6	745.0	745.4	742.2	741.8
10°	712.0	715.2	708.8	714.4	711.6
12.5°	678.9	680.9	669.7	672.1	668.9
15°	639.9	641.8	625.9	629.1	622.3
17.5°	597.2	604.4	591.2	595.2	588.1
20°	565.3	571.3	571.7	565.3	542.6
22.5°	540.2	546.2	551.0	531.9	529.5
25°	517.1	523.9	527.5	514.8	516.3
27.5°	494.0	501.6	501.6	504.4	500.8
30°	477.3	480.5	475.3	485.7	482.5
32.5°	457.4	458.6	454.2	461.8	450.6
35°	438.3	439.1	438.3	438.7	438.3
37.5°	419.9	417.9	421.5	419.1	426.7
40°	399.6	399.6	401.2	405.2	411.2
42.5°	380.9	382.5	380.5	391.6	394.0
45°	359.8	362.6	359.4	374.1	370.5
47.5°	340.6	341.8	341.0	351.0	351.8
50°	319.9	321.5	322.3	331.1	332.3
52.5°	302.8	302.4	299.6	312.4	314.3
55°	282.5	282.1	281.3	291.2	294.0
57.5°	261.8	262.2	264.1	269.7	276.5
60°	243.0	241.0	242.6	249.4	255.0
62.5°	223.9	220.3	216.7	227.9	233.1
65°	202.8	198.4	196.4	205.6	214.3
67.5°	183.3	176.1	174.9	181.3	191.6
70°	161.0	152.2	151.8	156.6	168.9
72.5°	136.3	128.7	126.7	133.1	144.2
75°	112.8	104.4	102.0	108.0	118.3
77.5°	87.3	80.5	78.9	82.1	90.4
80°	61.4	57.4	55.8	57.0	62.9
82.5°	38.6	35.9	35.1	34.7	37.8
85°	19.5	17.5	17.5	16.3	17.1
87.5°	6.0	5.6	5.2	4.0	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)