

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P560691

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-80-85-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560691  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FSR-12-2-LD4-2STD-50-UNV-80-85-EDD  
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON  
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

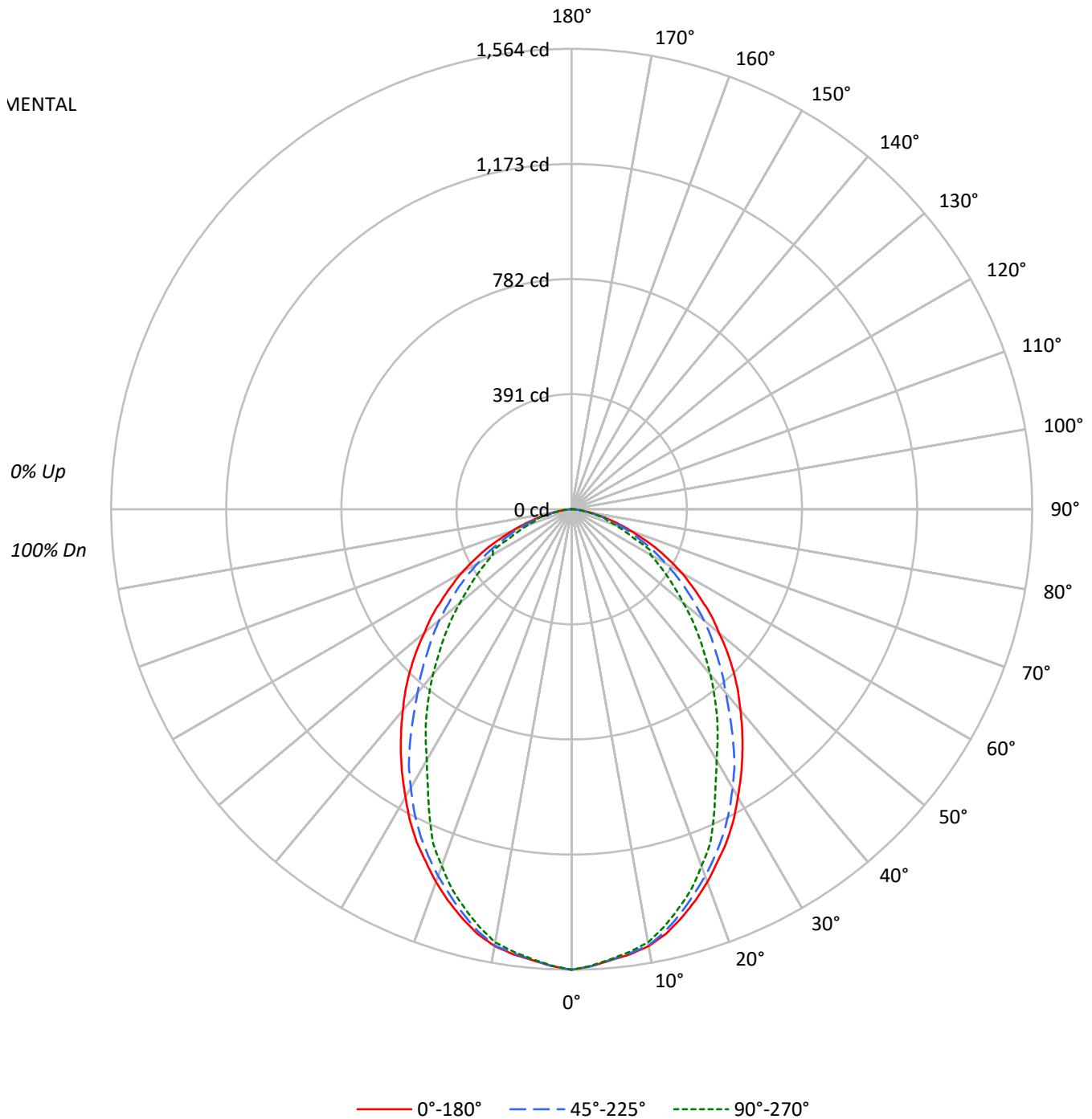
Lumens per Lamp: N/A  
Luminaire Lumens: 3071.0 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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: 24 FT



TEST NUMBER: P560691

CATALOG NUMBER: FSR-12-2-LD4-2STD-50-UNV-80-85-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P560691

CATALOG NUMBER: FSR-12-2-LD4-2STD-50-UNV-80-85-EDD

**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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8419	8419	8419
5°	8305	8295	8285
10°	8233	8223	8164
15°	8011	7930	7819
20°	7716	7592	7385
25°	7399	7238	6788
30°	7013	6788	6114
35°	6642	6274	5656
40°	6264	5717	5146
45°	5905	5286	4653
50°	5467	4906	4149
55°	5057	4446	3717
60°	4633	3971	3328
65°	4076	3478	2948
70°	3358	3045	2504
75°	2670	2331	2445
80°	1795	1683	1568
85°	1118	1340	1562

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5905 cd/sqm



TEST NUMBER: P560691

CATALOG NUMBER: FSR-12-2-LD4-2STD-50-UNV-80-85-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.6	4.7
10°-20°	399.6	13.0
20°-30°	553.3	18.0
30°-40°	589.9	19.2
40°-50°	538.2	17.5
50°-60°	421.6	13.7
60°-70°	274.8	8.9
70°-80°	121.7	4.0
80°-90°	26.2	0.9
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°	1098.5	35.8
0°-40°	1688.5	55.0
0°-60°	2648.3	86.2
0°-90°	3071.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3071.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1564	1564	1564	1564	1564	
5°	1537	1535	1535	1534	1534	146
15°	1438	1438	1423	1409	1403	404
25°	1246	1239	1219	1176	1143	572
35°	1011	1004	955	882	861	632
45°	776	760	694	637	611	598
55°	539	523	474	418	396	483
65°	320	302	273	278	232	315
75°	128	119	112	107	118	138
85°	18	20	22	24	25	25
90°	0	0	0	0	0	



TEST NUMBER: P560691

CATALOG NUMBER: FSR-12-2-LD4-2STD-50-UNV-80-85-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1564.3	1564.3	1564.3	1564.3	1564.3
2.5°	1553.5	1553.5	1553.5	1551.7	1551.7
5°	1537.2	1535.4	1535.4	1533.6	1533.6
7.5°	1524.5	1522.7	1520.9	1519.1	1515.5
10°	1506.5	1506.5	1504.6	1495.6	1493.8
12.5°	1477.5	1475.7	1468.5	1455.8	1452.2
15°	1437.7	1437.7	1423.3	1408.8	1403.4
17.5°	1394.3	1392.5	1374.4	1360.0	1352.7
20°	1347.3	1343.7	1325.6	1302.1	1289.4
22.5°	1294.9	1294.9	1273.2	1242.4	1229.8
25°	1246.0	1238.8	1218.9	1175.5	1143.0
27.5°	1190.0	1179.1	1157.4	1095.9	1058.0
30°	1128.5	1123.1	1092.3	1012.7	983.8
32.5°	1070.6	1061.6	1029.0	945.8	922.3
35°	1010.9	1003.7	954.9	882.5	860.8
37.5°	951.3	942.2	880.7	822.9	795.7
40°	891.6	880.7	813.8	761.4	732.4
42.5°	835.5	821.0	755.9	699.9	667.3
45°	775.8	759.6	694.5	636.6	611.3
47.5°	716.2	701.7	642.0	582.3	553.4
50°	652.9	640.2	585.9	526.3	495.5
52.5°	600.4	580.5	528.1	468.4	443.1
55°	538.9	522.6	473.8	417.8	396.1
57.5°	482.9	466.6	421.4	368.9	350.8
60°	430.4	406.9	368.9	323.7	309.2
62.5°	372.5	354.5	321.9	283.9	302.0
65°	320.1	302.0	273.1	278.5	231.5
67.5°	262.2	253.2	227.9	202.5	195.3
70°	213.4	202.5	193.5	166.4	159.1
72.5°	170.0	159.1	146.5	132.0	126.6
75°	128.4	119.4	112.1	106.7	117.6
77.5°	88.6	85.0	79.6	74.1	72.3
80°	57.9	56.1	54.3	52.4	50.6
82.5°	34.4	34.4	34.4	34.4	34.4
85°	18.1	19.9	21.7	23.5	25.3
87.5°	10.9	10.9	12.7	14.5	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)