

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: P590602

Luminaire Tested: FSR-24-2-LD4-3LO-50-UNV-82-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590602
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-3LO-50-UNV-82-94-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4185.0 lumens
Efficiency: N/A
Efficacy: 119.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

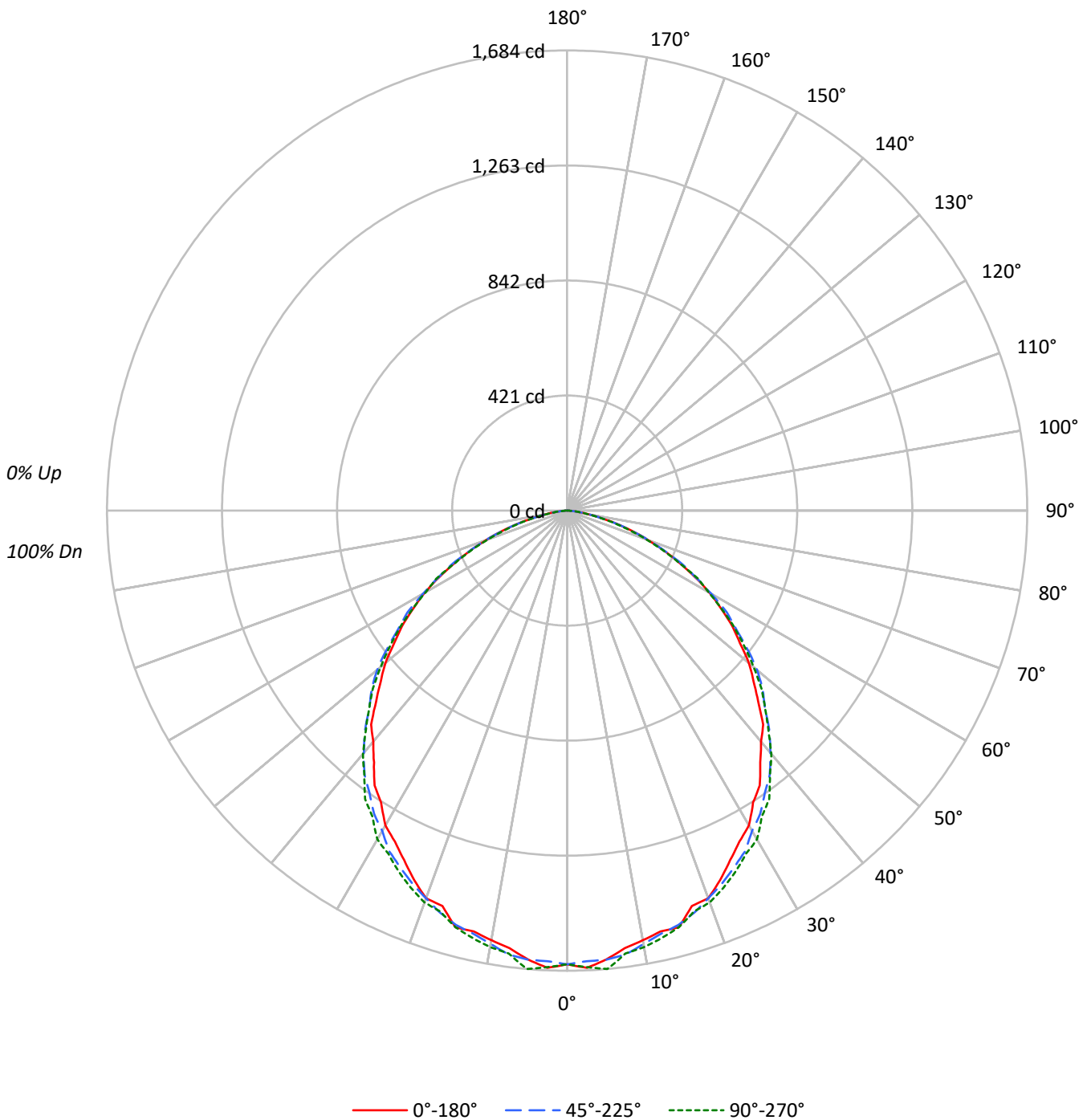
Input Watts (W): 35.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590602

CATALOG NUMBER: FSR-24-2-LD4-3LO-50-UNV-82-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590602

CATALOG NUMBER: FSR-24-2-LD4-3LO-50-UNV-82-94-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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4468	4468	4468
5°	4454	4455	4549
10°	4363	4401	4432
15°	4398	4374	4398
20°	4324	4324	4370
25°	4191	4282	4329
30°	4133	4206	4318
35°	4036	4141	4234
40°	3879	4065	4084
45°	3761	3895	3901
50°	3638	3802	3729
55°	3466	3534	3508
60°	3241	3273	3215
65°	2890	2964	2870
70°	2480	2488	2419
75°	1964	1960	1884
80°	1316	1278	1229
85°	716	707	661

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 3996 cd/sqm



TEST NUMBER: P590602

CATALOG NUMBER: FSR-24-2-LD4-3LO-50-UNV-82-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.2	3.7
10°-20°	442.7	10.6
20°-30°	663.2	15.8
30°-40°	786.1	18.8
40°-50°	787.5	18.8
50°-60°	668.5	16.0
60°-70°	450.7	10.8
70°-80°	198.0	4.7
80°-90°	32.2	0.8
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°	1262.1	30.2
0°-40°	2048.2	48.9
0°-60°	3504.1	83.7
0°-90°	4185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4185.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1660	1660	1660	1660	1660	
5°	1649	1645	1649	1644	1684	155
15°	1579	1560	1570	1578	1579	440
25°	1411	1419	1442	1461	1458	652
35°	1228	1232	1261	1290	1289	763
45°	988	1007	1024	1050	1025	765
55°	739	734	753	748	748	657
65°	454	448	466	448	451	451
75°	189	185	188	175	181	202
85°	23	22	23	22	21	34
90°	0	0	0	0	0	



TEST NUMBER: P590602

CATALOG NUMBER: FSR-24-2-LD4-3LO-50-UNV-82-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1660.5	1660.5	1660.5	1660.5	1660.5
2.5°	1674.9	1662.2	1650.4	1664.1	1672.5
5°	1648.7	1644.9	1649.4	1644.4	1684.1
7.5°	1614.8	1629.6	1638.2	1632.8	1635.2
10°	1596.8	1591.7	1610.8	1624.1	1622.1
12.5°	1577.5	1585.2	1586.3	1600.7	1602.0
15°	1578.6	1560.4	1570.0	1578.2	1578.8
17.5°	1517.3	1537.0	1543.7	1562.3	1539.2
20°	1509.8	1495.4	1509.8	1528.9	1525.9
22.5°	1463.7	1447.6	1478.5	1495.4	1494.3
25°	1411.4	1419.1	1442.2	1461.1	1458.1
27.5°	1365.5	1374.5	1407.5	1433.5	1416.7
30°	1330.1	1325.6	1353.5	1376.6	1389.5
32.5°	1266.9	1283.2	1315.8	1338.7	1326.5
35°	1228.5	1232.1	1260.7	1289.8	1289.0
37.5°	1161.4	1178.3	1218.4	1226.6	1219.1
40°	1104.1	1121.1	1157.3	1166.1	1162.5
42.5°	1061.9	1064.9	1096.0	1106.1	1090.0
45°	988.4	1006.8	1023.5	1049.9	1025.0
47.5°	925.8	934.3	970.4	977.4	964.4
50°	868.9	872.0	908.2	899.4	890.8
52.5°	797.6	810.2	830.6	828.9	818.8
55°	738.8	733.9	753.2	748.0	747.8
57.5°	668.3	676.9	692.7	684.6	671.5
60°	602.2	602.5	608.2	599.0	597.3
62.5°	528.7	531.3	532.6	521.2	539.6
65°	453.9	447.9	465.5	447.7	450.7
67.5°	385.1	388.1	386.3	375.2	379.5
70°	315.2	319.0	316.2	303.6	307.4
72.5°	251.3	246.6	249.6	233.7	241.0
75°	188.9	185.0	188.5	175.2	181.2
77.5°	128.6	131.6	129.5	122.4	126.5
80°	84.9	82.5	82.5	78.5	79.3
82.5°	49.5	47.2	46.5	45.2	47.2
85°	23.2	22.5	22.9	22.3	21.4
87.5°	8.4	8.6	8.6	8.1	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)