

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: P590346

Luminaire Tested: FSR-24-2-LD4-2STD-35-UNV-82-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590346
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-LD4-2STD-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3638.0 lumens
Efficiency: N/A
Efficacy: 109.2 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

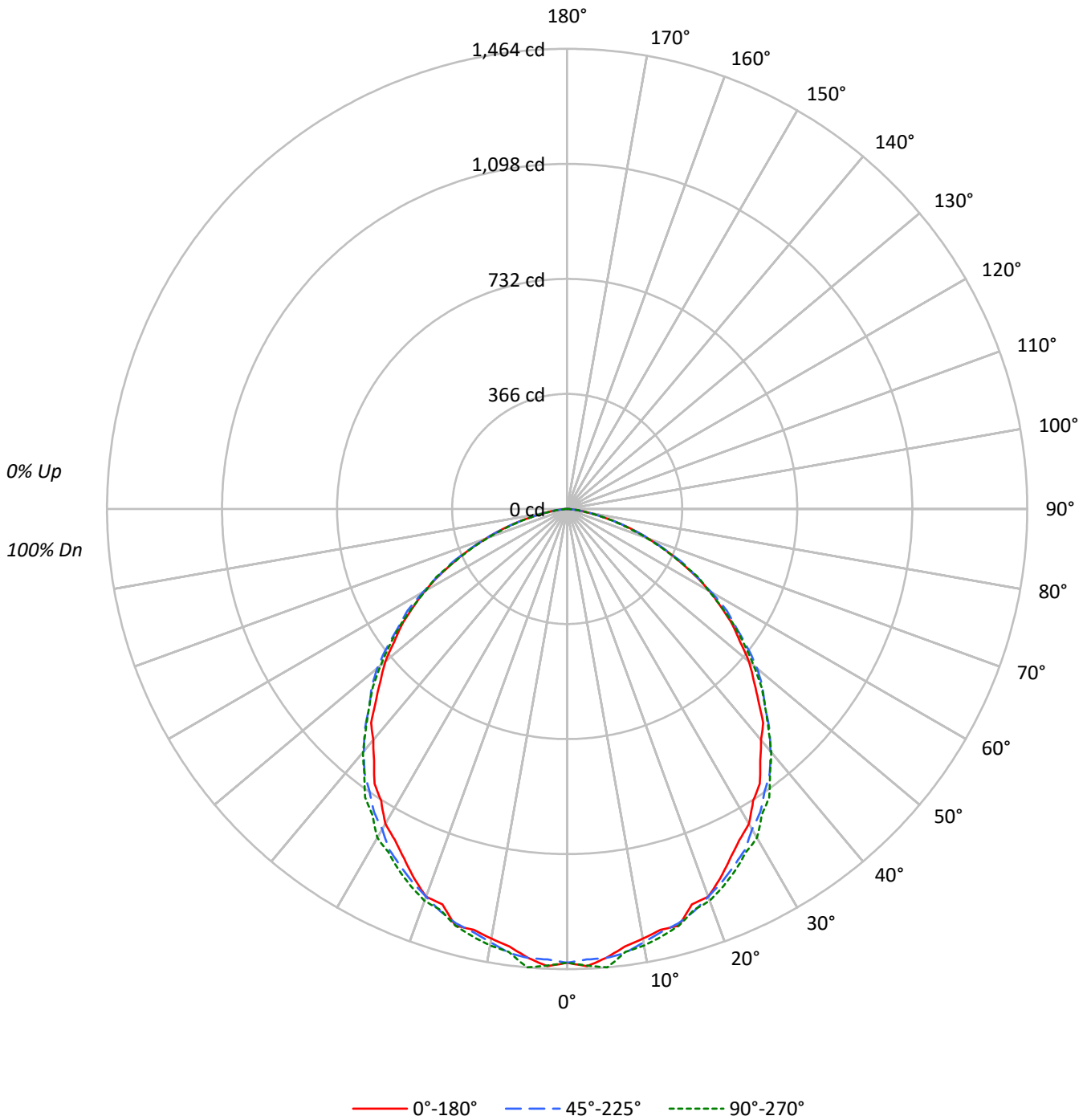
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590346

CATALOG NUMBER: FSR-24-2-LD4-2STD-35-UNV-82-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590346

CATALOG NUMBER: FSR-24-2-LD4-2STD-35-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3884	3884	3884
5°	3871	3873	3955
10°	3793	3826	3853
15°	3823	3802	3824
20°	3758	3758	3798
25°	3643	3722	3763
30°	3593	3656	3753
35°	3508	3600	3681
40°	3372	3534	3550
45°	3270	3386	3391
50°	3162	3305	3242
55°	3013	3072	3050
60°	2817	2845	2794
65°	2513	2576	2495
70°	2156	2163	2103
75°	1707	1703	1638
80°	1144	1113	1069
85°	621	614	574

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 3473 cd/sqm



TEST NUMBER: P590346

CATALOG NUMBER: FSR-24-2-LD4-2STD-35-UNV-82-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.8	3.7
10°-20°	384.8	10.6
20°-30°	576.5	15.8
30°-40°	683.3	18.8
40°-50°	684.6	18.8
50°-60°	581.1	16.0
60°-70°	391.8	10.8
70°-80°	172.1	4.7
80°-90°	28.0	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°	1097.1	30.2
0°-40°	1780.4	48.9
0°-60°	3046.1	83.7
0°-90°	3638.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3638.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1444	1444	1444	1444	1444	
5°	1433	1430	1434	1430	1464	135
15°	1372	1356	1365	1372	1372	382
25°	1227	1234	1254	1270	1268	567
35°	1068	1071	1096	1121	1120	663
45°	859	875	890	913	891	665
55°	642	638	655	650	650	571
65°	395	389	405	389	392	392
75°	164	161	164	152	158	176
85°	20	20	20	19	19	29
90°	0	0	0	0	0	



TEST NUMBER: P590346

CATALOG NUMBER: FSR-24-2-LD4-2STD-35-UNV-82-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1443.5	1443.5	1443.5	1443.5	1443.5
2.5°	1456.0	1445.0	1434.7	1446.6	1453.9
5°	1433.2	1429.9	1433.8	1429.5	1464.0
7.5°	1403.8	1416.6	1424.1	1419.4	1421.5
10°	1388.1	1383.6	1400.2	1411.8	1410.1
12.5°	1371.3	1378.0	1379.0	1391.5	1392.6
15°	1372.3	1356.4	1364.8	1371.9	1372.5
17.5°	1319.0	1336.1	1341.9	1358.1	1338.0
20°	1312.4	1300.0	1312.4	1329.0	1326.4
22.5°	1272.4	1258.4	1285.2	1300.0	1299.0
25°	1226.9	1233.6	1253.7	1270.1	1267.5
27.5°	1187.0	1194.8	1223.5	1246.1	1231.6
30°	1156.3	1152.4	1176.6	1196.7	1207.9
32.5°	1101.3	1115.4	1143.8	1163.7	1153.1
35°	1067.9	1071.1	1095.9	1121.2	1120.5
37.5°	1009.6	1024.3	1059.2	1066.2	1059.7
40°	959.8	974.5	1006.0	1013.7	1010.5
42.5°	923.1	925.7	952.7	961.5	947.5
45°	859.2	875.2	889.7	912.7	891.1
47.5°	804.8	812.2	843.5	849.7	838.3
50°	755.4	758.0	789.5	781.8	774.4
52.5°	693.3	704.3	722.0	720.5	711.8
55°	642.2	638.0	654.7	650.3	650.1
57.5°	580.9	588.4	602.2	595.1	583.7
60°	523.5	523.7	528.7	520.7	519.2
62.5°	459.6	461.8	463.0	453.1	469.1
65°	394.6	389.3	404.6	389.1	391.8
67.5°	334.7	337.3	335.8	326.2	329.9
70°	274.0	277.3	274.9	263.9	267.3
72.5°	218.4	214.3	216.9	203.1	209.5
75°	164.2	160.8	163.8	152.3	157.5
77.5°	111.8	114.4	112.6	106.4	110.0
80°	73.8	71.8	71.8	68.2	69.0
82.5°	43.1	41.0	40.4	39.3	41.0
85°	20.1	19.6	19.9	19.4	18.6
87.5°	7.3	7.5	7.5	7.1	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)