

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: P590569

Luminaire Tested: FSR-24-2-LD4-3LO-40-UNV-82-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590569
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-40-UNV-82-88-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3467.0 lumens
Efficiency: N/A
Efficacy: 98.8 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

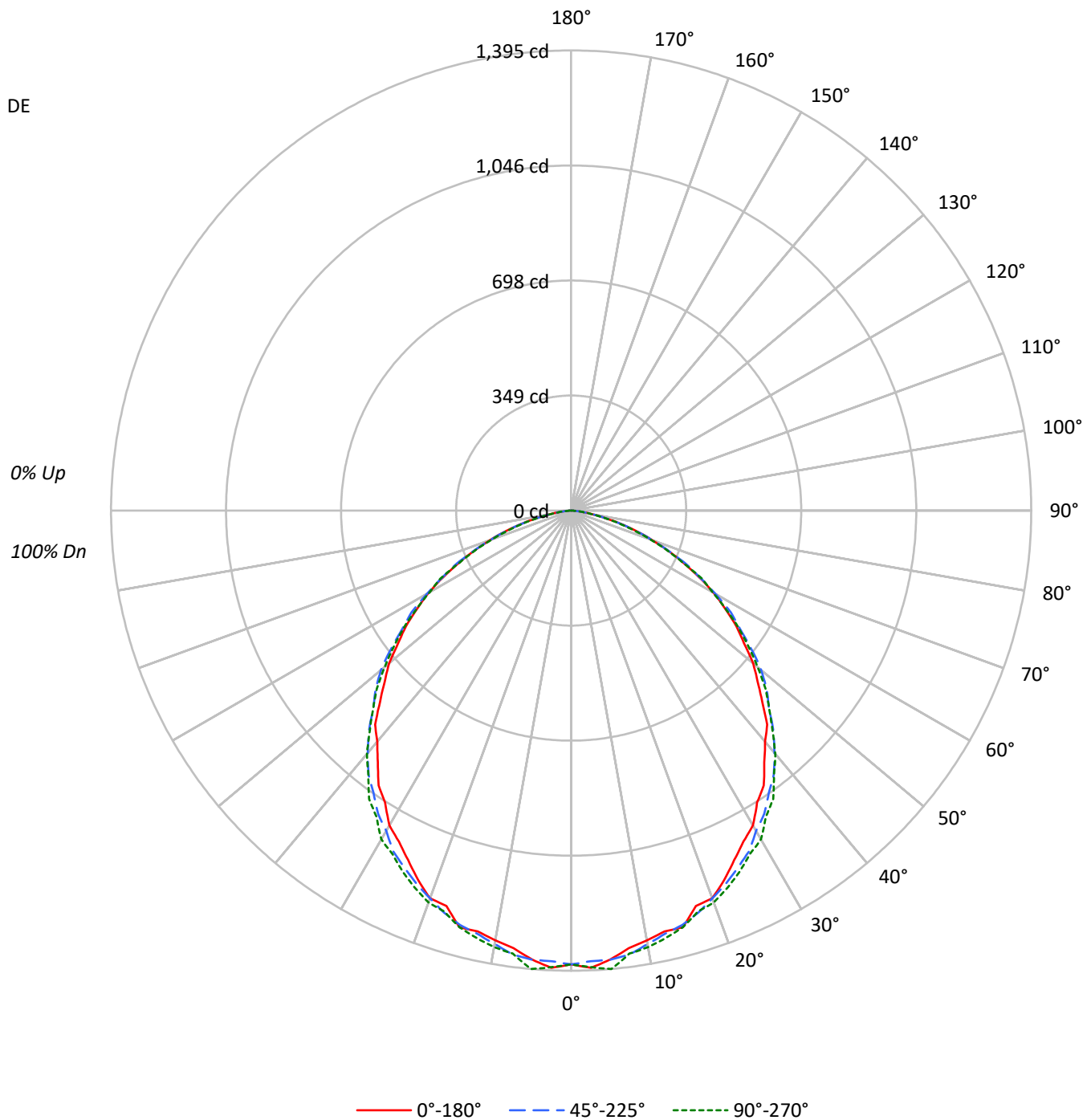
Input Watts (W): 35.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590569

CATALOG NUMBER: FSR-24-2-LD4-3LO-40-UNV-82-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590569

CATALOG NUMBER: FSR-24-2-LD4-3LO-40-UNV-82-88-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°	3702	3702	3702
5°	3689	3691	3769
10°	3615	3646	3672
15°	3643	3624	3644
20°	3582	3582	3620
25°	3472	3548	3587
30°	3424	3484	3577
35°	3343	3431	3508
40°	3213	3368	3383
45°	3116	3227	3232
50°	3014	3150	3090
55°	2872	2928	2906
60°	2685	2712	2663
65°	2394	2455	2377
70°	2054	2061	2004
75°	1627	1623	1561
80°	1089	1060	1018
85°	593	587	550

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 3310 cd/sqm



TEST NUMBER: P590569

CATALOG NUMBER: FSR-24-2-LD4-3LO-40-UNV-82-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.4	3.7
10°-20°	366.7	10.6
20°-30°	549.4	15.8
30°-40°	651.2	18.8
40°-50°	652.4	18.8
50°-60°	553.8	16.0
60°-70°	373.4	10.8
70°-80°	164.1	4.7
80°-90°	26.7	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°	1045.6	30.2
0°-40°	1696.8	48.9
0°-60°	2902.9	83.7
0°-90°	3467.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3467.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1376	1376	1376	1376	1376	
5°	1366	1363	1366	1362	1395	129
15°	1308	1293	1301	1307	1308	364
25°	1169	1176	1195	1210	1208	541
35°	1018	1021	1044	1068	1068	632
45°	819	834	848	870	849	633
55°	612	608	624	620	620	544
65°	376	371	386	371	373	374
75°	156	153	156	145	150	168
85°	19	19	19	18	18	28
90°	0	0	0	0	0	



TEST NUMBER: P590569

CATALOG NUMBER: FSR-24-2-LD4-3LO-40-UNV-82-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1375.6	1375.6	1375.6	1375.6	1375.6
2.5°	1387.5	1377.0	1367.3	1378.6	1385.6
5°	1365.8	1362.7	1366.4	1362.3	1395.2
7.5°	1337.8	1350.0	1357.1	1352.7	1354.7
10°	1322.9	1318.6	1334.4	1345.4	1343.8
12.5°	1306.9	1313.3	1314.2	1326.1	1327.1
15°	1307.8	1292.7	1300.7	1307.4	1307.9
17.5°	1257.0	1273.3	1278.8	1294.3	1275.1
20°	1250.8	1238.9	1250.8	1266.6	1264.1
22.5°	1212.6	1199.2	1224.8	1238.9	1238.0
25°	1169.2	1175.6	1194.8	1210.4	1208.0
27.5°	1131.2	1138.7	1166.0	1187.5	1173.7
30°	1101.9	1098.2	1121.3	1140.5	1151.1
32.5°	1049.5	1063.0	1090.0	1109.0	1098.9
35°	1017.7	1020.7	1044.4	1068.5	1067.8
37.5°	962.1	976.2	1009.4	1016.1	1009.9
40°	914.7	928.7	958.8	966.0	963.0
42.5°	879.7	882.2	908.0	916.3	903.0
45°	818.8	834.1	847.9	869.8	849.2
47.5°	766.9	774.0	803.9	809.7	798.9
50°	719.9	722.4	752.4	745.1	738.0
52.5°	660.7	671.2	688.1	686.7	678.3
55°	612.1	608.0	624.0	619.7	619.5
57.5°	553.6	560.7	573.9	567.1	556.3
60°	498.9	499.1	503.9	496.3	494.8
62.5°	438.0	440.1	441.2	431.8	447.1
65°	376.0	371.0	385.6	370.9	373.3
67.5°	319.0	321.5	320.1	310.8	314.4
70°	261.1	264.3	262.0	251.5	254.7
72.5°	208.2	204.3	206.7	193.6	199.6
75°	156.5	153.3	156.1	145.1	150.1
77.5°	106.6	109.1	107.3	101.4	104.8
80°	70.3	68.4	68.4	65.0	65.7
82.5°	41.0	39.1	38.5	37.5	39.1
85°	19.2	18.6	19.0	18.5	17.8
87.5°	6.9	7.1	7.1	6.7	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)