

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: P560392

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560392
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-LD4-2LO-35-UNV-81-88-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1529.0 lumens
Efficiency: N/A
Efficacy: 65.3 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

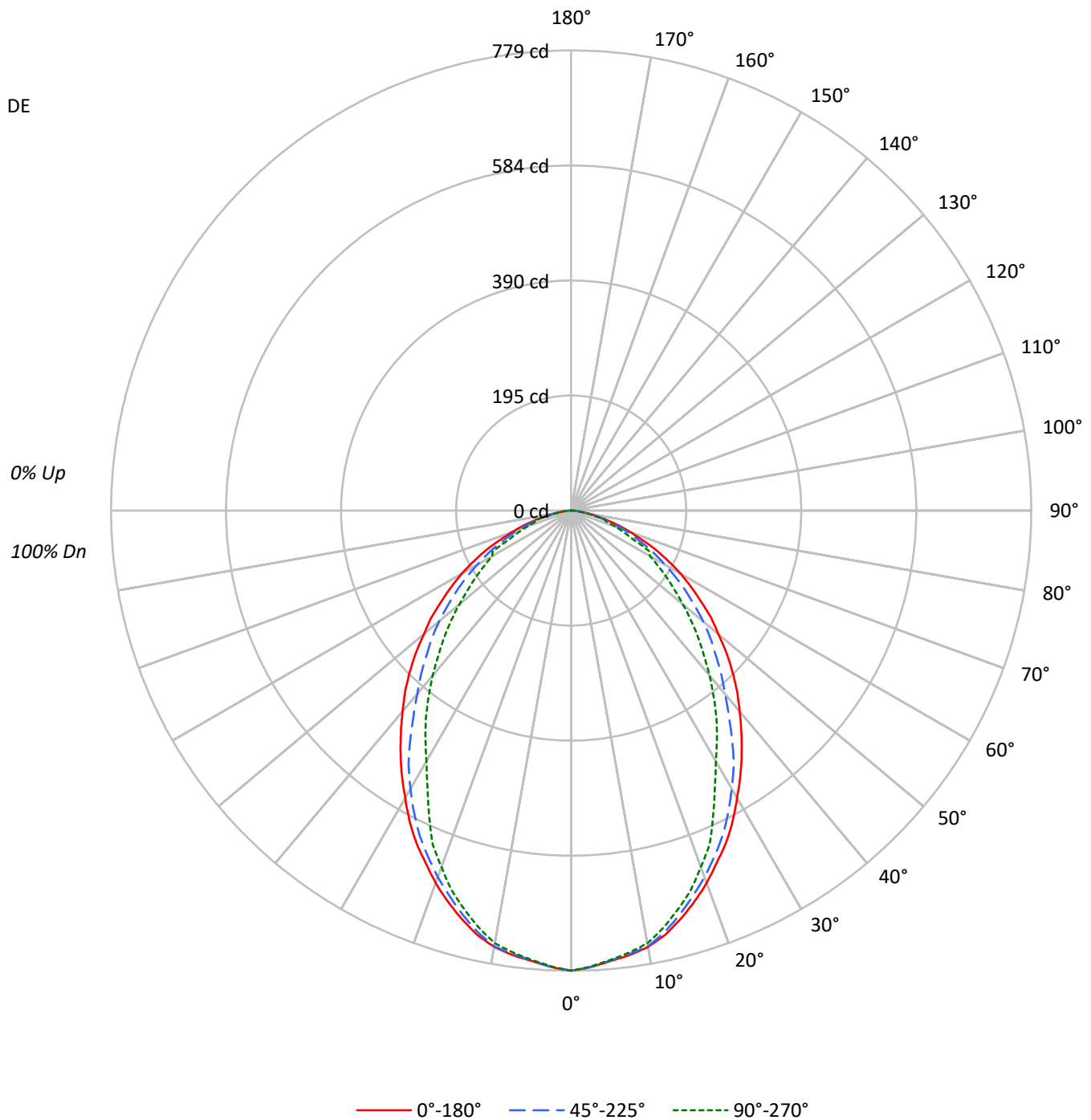
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560392

CATALOG NUMBER: FSR-12-2-LD4-2LO-35-UNV-81-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P560392

CATALOG NUMBER: FSR-12-2-LD4-2LO-35-UNV-81-88-EDD-90

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°	4192	4192	4192
5°	4135	4130	4125
10°	4099	4094	4064
15°	3988	3948	3893
20°	3842	3780	3677
25°	3684	3604	3380
30°	3492	3379	3044
35°	3307	3123	2816
40°	3119	2847	2562
45°	2940	2632	2316
50°	2721	2442	2066
55°	2518	2213	1850
60°	2307	1977	1658
65°	2030	1732	1468
70°	1671	1515	1246
75°	1329	1160	1216
80°	893	837	781
85°	556	667	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2940 cd/sqm

TEST NUMBER: P560392

CATALOG NUMBER: FSR-12-2-LD4-2LO-35-UNV-81-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.5	4.7
10°-20°	199.0	13.0
20°-30°	275.5	18.0
30°-40°	293.7	19.2
40°-50°	268.0	17.5
50°-60°	209.9	13.7
60°-70°	136.8	8.9
70°-80°	60.6	4.0
80°-90°	13.0	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
<hr/>		
0°-30°	546.9	35.8
0°-40°	840.7	55.0
0°-60°	1318.5	86.2
0°-90°	1529.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1529.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	779	779	779	779	779	
5°	765	764	764	764	764	73
15°	716	716	709	701	699	201
25°	620	617	607	585	569	285
35°	503	500	475	439	429	315
45°	386	378	346	317	304	298
55°	268	260	236	208	197	241
65°	159	150	136	139	115	157
75°	64	59	56	53	58	68
85°	9	10	11	12	13	12
90°	0	0	0	0	0	



TEST NUMBER: P560392

CATALOG NUMBER: FSR-12-2-LD4-2LO-35-UNV-81-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	778.9	778.9	778.9	778.9	778.9
2.5°	773.4	773.4	773.4	772.5	772.5
5°	765.3	764.4	764.4	763.5	763.5
7.5°	759.0	758.1	757.2	756.3	754.5
10°	750.0	750.0	749.1	744.6	743.7
12.5°	735.6	734.7	731.1	724.8	723.0
15°	715.8	715.8	708.6	701.4	698.7
17.5°	694.2	693.3	684.3	677.1	673.5
20°	670.8	669.0	660.0	648.3	642.0
22.5°	644.7	644.7	633.9	618.6	612.3
25°	620.4	616.8	606.9	585.3	569.1
27.5°	592.5	587.1	576.3	545.6	526.7
30°	561.9	559.2	543.8	504.2	489.8
32.5°	533.0	528.5	512.3	470.9	459.2
35°	503.3	499.7	475.4	439.4	428.6
37.5°	473.6	469.1	438.5	409.7	396.2
40°	443.9	438.5	405.2	379.1	364.7
42.5°	416.0	408.8	376.4	348.5	332.3
45°	386.3	378.2	345.8	316.9	304.3
47.5°	356.6	349.4	319.6	289.9	275.5
50°	325.0	318.7	291.7	262.0	246.7
52.5°	298.9	289.0	262.9	233.2	220.6
55°	268.3	260.2	235.9	208.0	197.2
57.5°	240.4	232.3	209.8	183.7	174.7
60°	214.3	202.6	183.7	161.2	154.0
62.5°	185.5	176.5	160.3	141.4	150.4
65°	159.4	150.4	136.0	138.7	115.3
67.5°	130.6	126.1	113.5	100.8	97.2
70°	106.2	100.8	96.3	82.8	79.2
72.5°	84.6	79.2	72.9	65.7	63.0
75°	63.9	59.4	55.8	53.1	58.5
77.5°	44.1	42.3	39.6	36.9	36.0
80°	28.8	27.9	27.0	26.1	25.2
82.5°	17.1	17.1	17.1	17.1	17.1
85°	9.0	9.9	10.8	11.7	12.6
87.5°	5.4	5.4	6.3	7.2	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)