

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: P559269

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-93-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559269
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-12-1-LD4-2LO-35-UNV-93-86-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1141.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

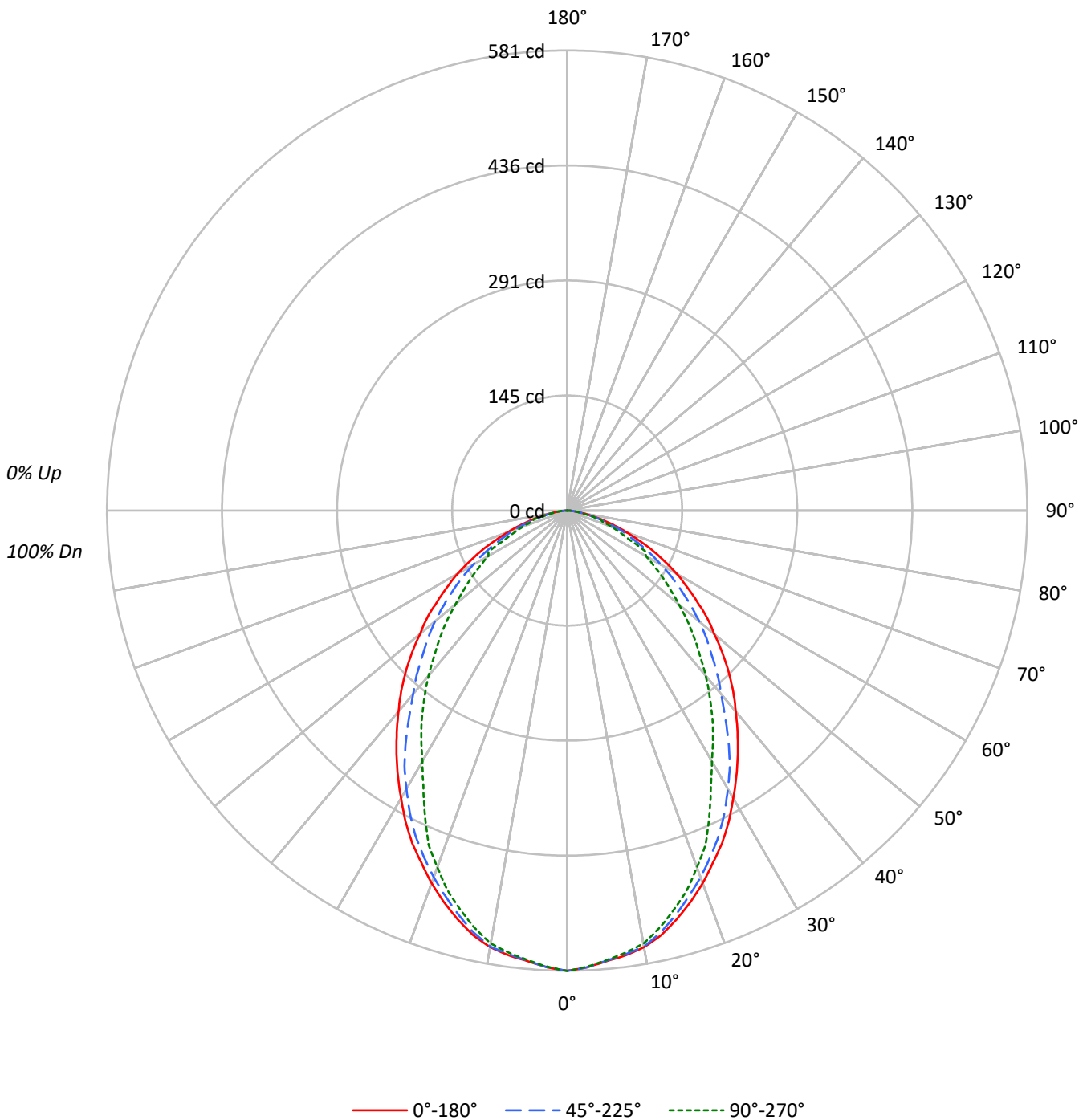
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559269

CATALOG NUMBER: FSR-12-1-LD4-2LO-35-UNV-93-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P559269

CATALOG NUMBER: FSR-12-1-LD4-2LO-35-UNV-93-86-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	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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87												87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75												75																
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65												65																
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56												56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50												50																
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44												44																
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40												40																
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36												36																
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33												33																
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30												30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6256	6256	6256
5°	6171	6164	6157
10°	6118	6110	6066
15°	5953	5893	5810
20°	5734	5641	5488
25°	5499	5379	5044
30°	5212	5044	4543
35°	4936	4662	4202
40°	4655	4249	3823
45°	4389	3927	3457
50°	4063	3646	3083
55°	3757	3303	2762
60°	3442	2951	2474
65°	3028	2585	2190
70°	2496	2263	1860
75°	1984	1734	1817
80°	1333	1252	1165
85°	827	1000	1161

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4389 cd/sqm



TEST NUMBER: P559269

CATALOG NUMBER: FSR-12-1-LD4-2LO-35-UNV-93-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.1	4.7
10°-20°	148.5	13.0
20°-30°	205.6	18.0
30°-40°	219.2	19.2
40°-50°	200.0	17.5
50°-60°	156.7	13.7
60°-70°	102.1	8.9
70°-80°	45.2	4.0
80°-90°	9.7	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°	408.1	35.8
0°-40°	627.3	55.0
0°-60°	984.0	86.2
0°-90°	1141.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1141.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	571	570	570	570	570	54
15°	534	534	529	523	521	150
25°	463	460	453	437	425	213
35°	376	373	355	328	320	235
45°	288	282	258	236	227	222
55°	200	194	176	155	147	180
65°	119	112	102	104	86	117
75°	48	44	42	40	44	51
85°	7	7	8	9	9	9
90°	0	0	0	0	0	



TEST NUMBER: P559269

CATALOG NUMBER: FSR-12-1-LD4-2LO-35-UNV-93-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	581.2	581.2	581.2	581.2	581.2
2.5°	577.2	577.2	577.2	576.5	576.5
5°	571.1	570.5	570.5	569.8	569.8
7.5°	566.4	565.8	565.1	564.4	563.1
10°	559.7	559.7	559.0	555.7	555.0
12.5°	549.0	548.3	545.6	540.9	539.6
15°	534.2	534.2	528.8	523.4	521.4
17.5°	518.0	517.4	510.7	505.3	502.6
20°	500.6	499.2	492.5	483.8	479.1
22.5°	481.1	481.1	473.0	461.6	456.9
25°	463.0	460.3	452.9	436.7	424.7
27.5°	442.1	438.1	430.0	407.2	393.1
30°	419.3	417.3	405.8	376.3	365.5
32.5°	397.8	394.4	382.3	351.4	342.7
35°	375.6	372.9	354.8	327.9	319.8
37.5°	353.4	350.1	327.2	305.7	295.6
40°	331.3	327.2	302.4	282.9	272.1
42.5°	310.4	305.1	280.9	260.0	247.9
45°	288.3	282.2	258.0	236.5	227.1
47.5°	266.1	260.7	238.5	216.4	205.6
50°	242.6	237.9	217.7	195.5	184.1
52.5°	223.1	215.7	196.2	174.0	164.6
55°	200.2	194.2	176.0	155.2	147.2
57.5°	179.4	173.4	156.6	137.1	130.4
60°	159.9	151.2	137.1	120.3	114.9
62.5°	138.4	131.7	119.6	105.5	112.2
65°	118.9	112.2	101.5	103.5	86.0
67.5°	97.4	94.1	84.7	75.3	72.6
70°	79.3	75.3	71.9	61.8	59.1
72.5°	63.2	59.1	54.4	49.1	47.0
75°	47.7	44.3	41.7	39.6	43.7
77.5°	32.9	31.6	29.6	27.5	26.9
80°	21.5	20.8	20.2	19.5	18.8
82.5°	12.8	12.8	12.8	12.8	12.8
85°	6.7	7.4	8.1	8.7	9.4
87.5°	4.0	4.0	4.7	5.4	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)