

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: P558690

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-93-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558690
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-LD4-1LO-35-UNV-93-85-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 483.0 lumens
Efficiency: N/A
Efficacy: 83.3 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

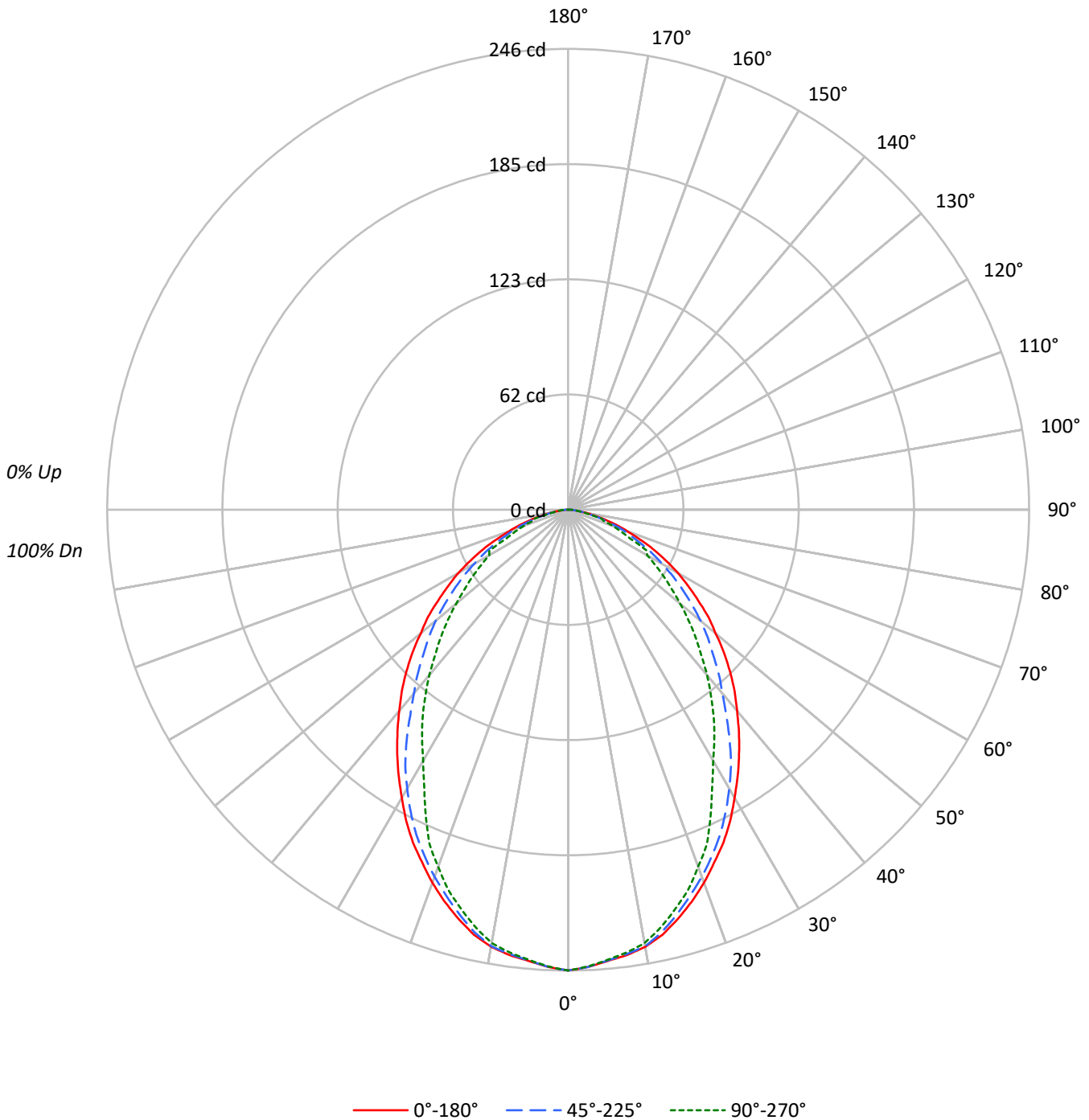
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P558690

CATALOG NUMBER: FSR-12-1-LD4-1LO-35-UNV-93-85-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558690

CATALOG NUMBER: FSR-12-1-LD4-1LO-35-UNV-93-85-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	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°	2648	2648	2648
5°	2613	2609	2606
10°	2589	2586	2567
15°	2520	2494	2459
20°	2427	2388	2323
25°	2328	2277	2135
30°	2206	2135	1923
35°	2089	1974	1779
40°	1970	1799	1619
45°	1857	1662	1463
50°	1720	1544	1304
55°	1591	1398	1169
60°	1457	1249	1046
65°	1281	1093	927
70°	1057	957	787
75°	840	732	769
80°	564	527	496
85°	346	420	494

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1857 cd/sqm



TEST NUMBER: P558690

CATALOG NUMBER: FSR-12-1-LD4-1LO-35-UNV-93-85-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.9	4.7
10°-20°	62.9	13.0
20°-30°	87.0	18.0
30°-40°	92.8	19.2
40°-50°	84.6	17.5
50°-60°	66.3	13.7
60°-70°	43.2	8.9
70°-80°	19.1	4.0
80°-90°	4.1	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°	172.8	35.8
0°-40°	265.6	55.0
0°-60°	416.5	86.2
0°-90°	483.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	483.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	246	246	246	246	246	
5°	242	242	242	241	241	23
15°	226	226	224	222	221	64
25°	196	195	192	185	180	90
35°	159	158	150	139	135	99
45°	122	120	109	100	96	94
55°	85	82	74	66	62	76
65°	50	48	43	44	36	50
75°	20	19	18	17	18	22
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



TEST NUMBER: P558690

CATALOG NUMBER: FSR-12-1-LD4-1LO-35-UNV-93-85-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	246.0	246.0	246.0	246.0	246.0
2.5°	244.3	244.3	244.3	244.0	244.0
5°	241.8	241.5	241.5	241.2	241.2
7.5°	239.8	239.5	239.2	238.9	238.4
10°	236.9	236.9	236.6	235.2	234.9
12.5°	232.4	232.1	231.0	229.0	228.4
15°	226.1	226.1	223.8	221.6	220.7
17.5°	219.3	219.0	216.2	213.9	212.8
20°	211.9	211.3	208.5	204.8	202.8
22.5°	203.7	203.7	200.2	195.4	193.4
25°	196.0	194.8	191.7	184.9	179.8
27.5°	187.2	185.4	182.0	172.4	166.4
30°	177.5	176.6	171.8	159.3	154.7
32.5°	168.4	167.0	161.8	148.8	145.1
35°	159.0	157.9	150.2	138.8	135.4
37.5°	149.6	148.2	138.5	129.4	125.2
40°	140.2	138.5	128.0	119.7	115.2
42.5°	131.4	129.1	118.9	110.1	105.0
45°	122.0	119.5	109.2	100.1	96.1
47.5°	112.6	110.4	101.0	91.6	87.0
50°	102.7	100.7	92.2	82.8	77.9
52.5°	94.4	91.3	83.1	73.7	69.7
55°	84.8	82.2	74.5	65.7	62.3
57.5°	75.9	73.4	66.3	58.0	55.2
60°	67.7	64.0	58.0	50.9	48.6
62.5°	58.6	55.7	50.6	44.7	47.5
65°	50.3	47.5	42.9	43.8	36.4
67.5°	41.2	39.8	35.8	31.9	30.7
70°	33.6	31.9	30.4	26.2	25.0
72.5°	26.7	25.0	23.0	20.8	19.9
75°	20.2	18.8	17.6	16.8	18.5
77.5°	13.9	13.4	12.5	11.7	11.4
80°	9.1	8.8	8.5	8.2	8.0
82.5°	5.4	5.4	5.4	5.4	5.4
85°	2.8	3.1	3.4	3.7	4.0
87.5°	1.7	1.7	2.0	2.3	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)