

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: P559963

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559963
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-LD4-1LO-50-UNV-82-94-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1091.0 lumens
Efficiency: N/A
Efficacy: 93.2 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

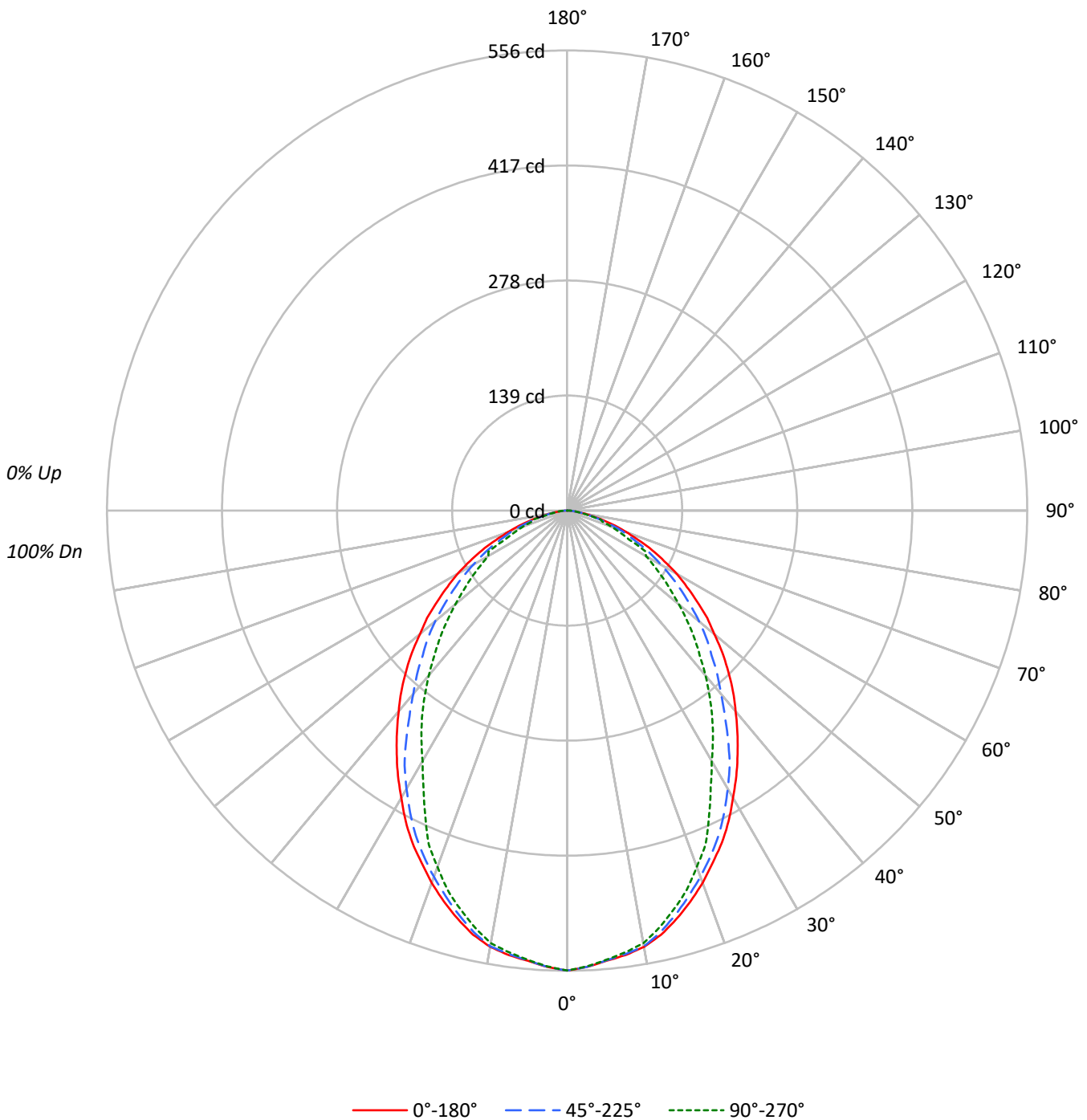
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559963

CATALOG NUMBER: FSR-12-2-LD4-1LO-50-UNV-82-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P559963

CATALOG NUMBER: FSR-12-2-LD4-1LO-50-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	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°	2991	2991	2991
5°	2950	2947	2943
10°	2925	2921	2900
15°	2846	2817	2778
20°	2741	2697	2624
25°	2629	2571	2411
30°	2491	2412	2172
35°	2359	2229	2009
40°	2225	2031	1828
45°	2098	1878	1653
50°	1942	1743	1474
55°	1797	1579	1320
60°	1646	1411	1183
65°	1448	1235	1047
70°	1193	1081	889
75°	948	828	869
80°	638	598	558
85°	395	475	556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2098 cd/sqm



TEST NUMBER: P559963

CATALOG NUMBER: FSR-12-2-LD4-1LO-50-UNV-82-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.7	4.7
10°-20°	142.0	13.0
20°-30°	196.6	18.0
30°-40°	209.6	19.2
40°-50°	191.2	17.5
50°-60°	149.8	13.7
60°-70°	97.6	8.9
70°-80°	43.2	4.0
80°-90°	9.3	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°	390.3	35.8
0°-40°	599.8	55.0
0°-60°	940.8	86.2
0°-90°	1091.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1091.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	546	546	546	545	545	52
15°	511	511	506	500	499	144
25°	443	440	433	418	406	203
35°	359	357	339	314	306	225
45°	276	270	247	226	217	212
55°	192	186	168	148	141	172
65°	114	107	97	99	82	112
75°	46	42	40	38	42	49
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



TEST NUMBER: P559963

CATALOG NUMBER: FSR-12-2-LD4-1LO-50-UNV-82-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	555.7	555.7	555.7	555.7	555.7
2.5°	551.9	551.9	551.9	551.2	551.2
5°	546.1	545.5	545.5	544.8	544.8
7.5°	541.6	541.0	540.3	539.7	538.4
10°	535.2	535.2	534.5	531.3	530.7
12.5°	524.9	524.3	521.7	517.2	515.9
15°	510.8	510.8	505.6	500.5	498.6
17.5°	495.3	494.7	488.3	483.1	480.6
20°	478.6	477.4	470.9	462.6	458.1
22.5°	460.0	460.0	452.3	441.4	436.9
25°	442.7	440.1	433.0	417.6	406.0
27.5°	422.7	418.9	411.2	389.3	375.8
30°	400.9	399.0	388.1	359.8	349.5
32.5°	380.3	377.1	365.6	336.0	327.7
35°	359.1	356.6	339.2	313.5	305.8
37.5°	337.9	334.7	312.9	292.3	282.7
40°	316.7	312.9	289.1	270.5	260.2
42.5°	296.8	291.7	268.6	248.6	237.1
45°	275.6	269.8	246.7	226.2	217.2
47.5°	254.4	249.3	228.1	206.9	196.6
50°	231.9	227.4	208.2	187.0	176.0
52.5°	213.3	206.2	187.6	166.4	157.4
55°	191.5	185.7	168.3	148.4	140.7
57.5°	171.5	165.8	149.7	131.1	124.6
60°	152.9	144.6	131.1	115.0	109.9
62.5°	132.3	125.9	114.4	100.9	107.3
65°	113.7	107.3	97.0	98.9	82.2
67.5°	93.2	89.9	81.0	72.0	69.4
70°	75.8	72.0	68.7	59.1	56.5
72.5°	60.4	56.5	52.0	46.9	45.0
75°	45.6	42.4	39.8	37.9	41.8
77.5°	31.5	30.2	28.3	26.3	25.7
80°	20.6	19.9	19.3	18.6	18.0
82.5°	12.2	12.2	12.2	12.2	12.2
85°	6.4	7.1	7.7	8.4	9.0
87.5°	3.9	3.9	4.5	5.1	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)