

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: P559782

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-93-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559782
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-LD4-1HI-50-UNV-93-87-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1571.0 lumens
Efficiency: N/A
Efficacy: 72.7 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

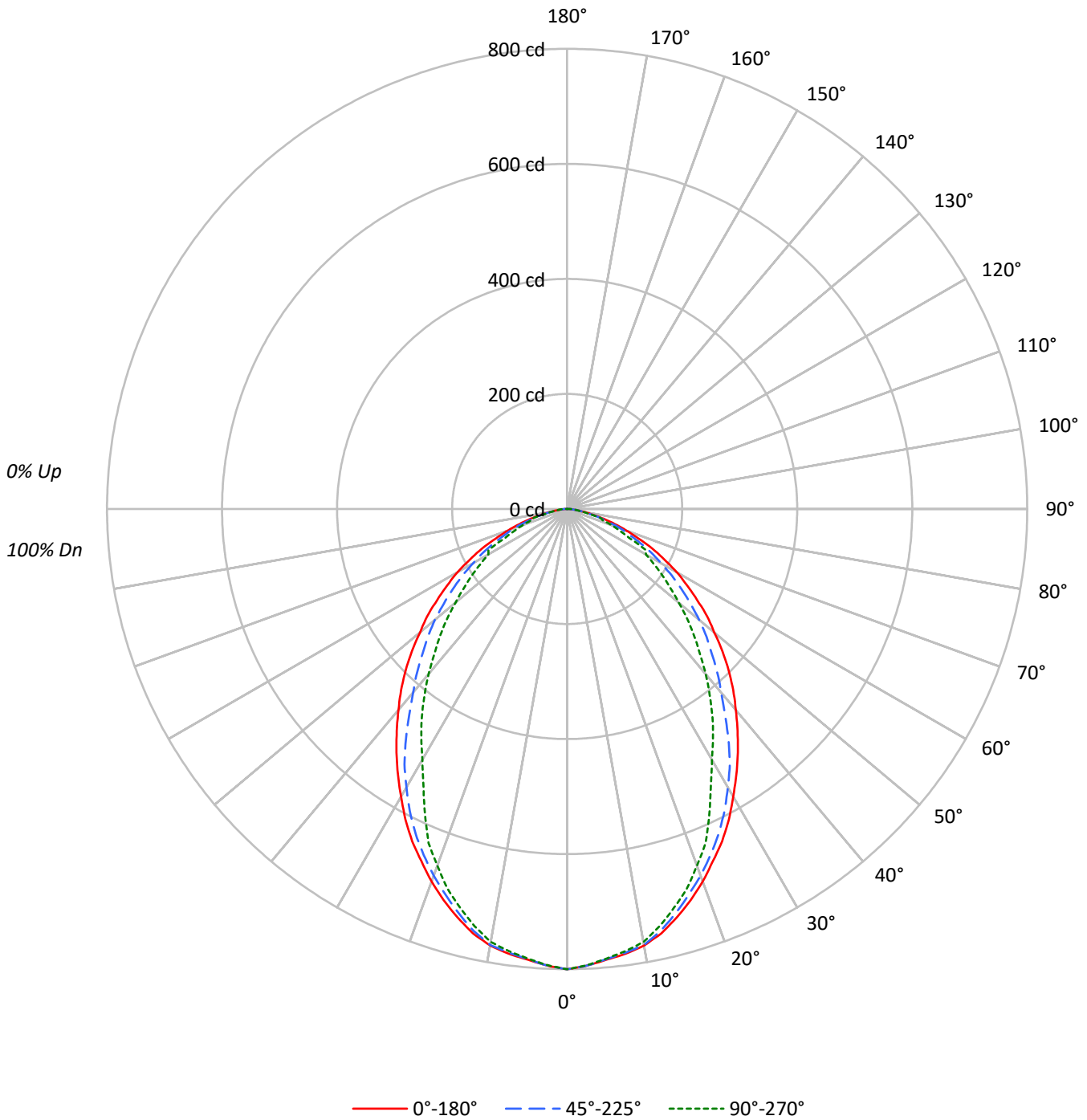
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559782

CATALOG NUMBER: FSR-12-2-LD4-1HI-50-UNV-93-87-EDD-90

Luminous Intensity Polar Plot



TEST NUMBER: P559782

CATALOG NUMBER: FSR-12-2-LD4-1HI-50-UNV-93-87-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	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°	4307	4307	4307
5°	4249	4243	4238
10°	4211	4206	4176
15°	4098	4057	4000
20°	3947	3884	3778
25°	3785	3703	3472
30°	3588	3473	3128
35°	3398	3210	2893
40°	3204	2925	2633
45°	3021	2704	2380
50°	2797	2509	2123
55°	2587	2274	1901
60°	2370	2031	1703
65°	2085	1779	1508
70°	1718	1558	1281
75°	1366	1194	1250
80°	917	862	803
85°	574	685	803

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3021 cd/sqm

TEST NUMBER: P559782

CATALOG NUMBER: FSR-12-2-LD4-1HI-50-UNV-93-87-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	4.7
10°-20°	204.4	13.0
20°-30°	283.0	18.0
30°-40°	301.8	19.2
40°-50°	275.3	17.5
50°-60°	215.7	13.7
60°-70°	140.6	8.9
70°-80°	62.3	4.0
80°-90°	13.4	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°	562.0	35.8
0°-40°	863.7	55.0
0°-60°	1354.8	86.2
0°-90°	1571.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1571.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	800	800	800	800	800	
5°	786	785	785	784	784	75
15°	736	736	728	721	718	207
25°	637	634	624	601	585	293
35°	517	514	488	452	440	323
45°	397	389	355	326	313	306
55°	276	267	242	214	203	247
65°	164	154	140	142	118	161
75°	66	61	57	55	60	70
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



TEST NUMBER: P559782

CATALOG NUMBER: FSR-12-2-LD4-1HI-50-UNV-93-87-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	800.2	800.2	800.2	800.2	800.2
2.5°	794.7	794.7	794.7	793.8	793.8
5°	786.4	785.4	785.4	784.5	784.5
7.5°	779.9	779.0	778.0	777.1	775.3
10°	770.6	770.6	769.7	765.1	764.2
12.5°	755.8	754.9	751.2	744.7	742.9
15°	735.5	735.5	728.1	720.7	717.9
17.5°	713.3	712.4	703.1	695.7	692.0
20°	689.2	687.4	678.1	666.1	659.6
22.5°	662.4	662.4	651.3	635.6	629.1
25°	637.4	633.7	623.5	601.3	584.7
27.5°	608.7	603.2	592.1	560.6	541.2
30°	577.3	574.5	558.8	518.1	503.3
32.5°	547.7	543.1	526.4	483.8	471.8
35°	517.2	513.5	488.5	451.5	440.4
37.5°	486.6	482.0	450.5	420.9	407.1
40°	456.1	450.5	416.3	389.5	374.7
42.5°	427.4	420.0	386.7	358.0	341.4
45°	396.9	388.6	355.3	325.6	312.7
47.5°	366.4	359.0	328.4	297.9	283.1
50°	334.0	327.5	299.7	269.2	253.5
52.5°	307.1	297.0	270.1	239.6	226.7
55°	275.7	267.4	242.4	213.7	202.6
57.5°	247.0	238.7	215.6	188.7	179.5
60°	220.2	208.2	188.7	165.6	158.2
62.5°	190.6	181.3	164.7	145.2	154.5
65°	163.7	154.5	139.7	142.5	118.4
67.5°	134.1	129.5	116.6	103.6	99.9
70°	109.2	103.6	99.0	85.1	81.4
72.5°	87.0	81.4	74.9	67.5	64.8
75°	65.7	61.1	57.4	54.6	60.1
77.5°	45.3	43.5	40.7	37.9	37.0
80°	29.6	28.7	27.8	26.8	25.9
82.5°	17.6	17.6	17.6	17.6	17.6
85°	9.3	10.2	11.1	12.0	13.0
87.5°	5.6	5.6	6.5	7.4	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)