

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: P559481

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559481
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-LD4-2STD-40-UNV-80-88-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1342.0 lumens
Efficiency: N/A
Efficacy: 80.8 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

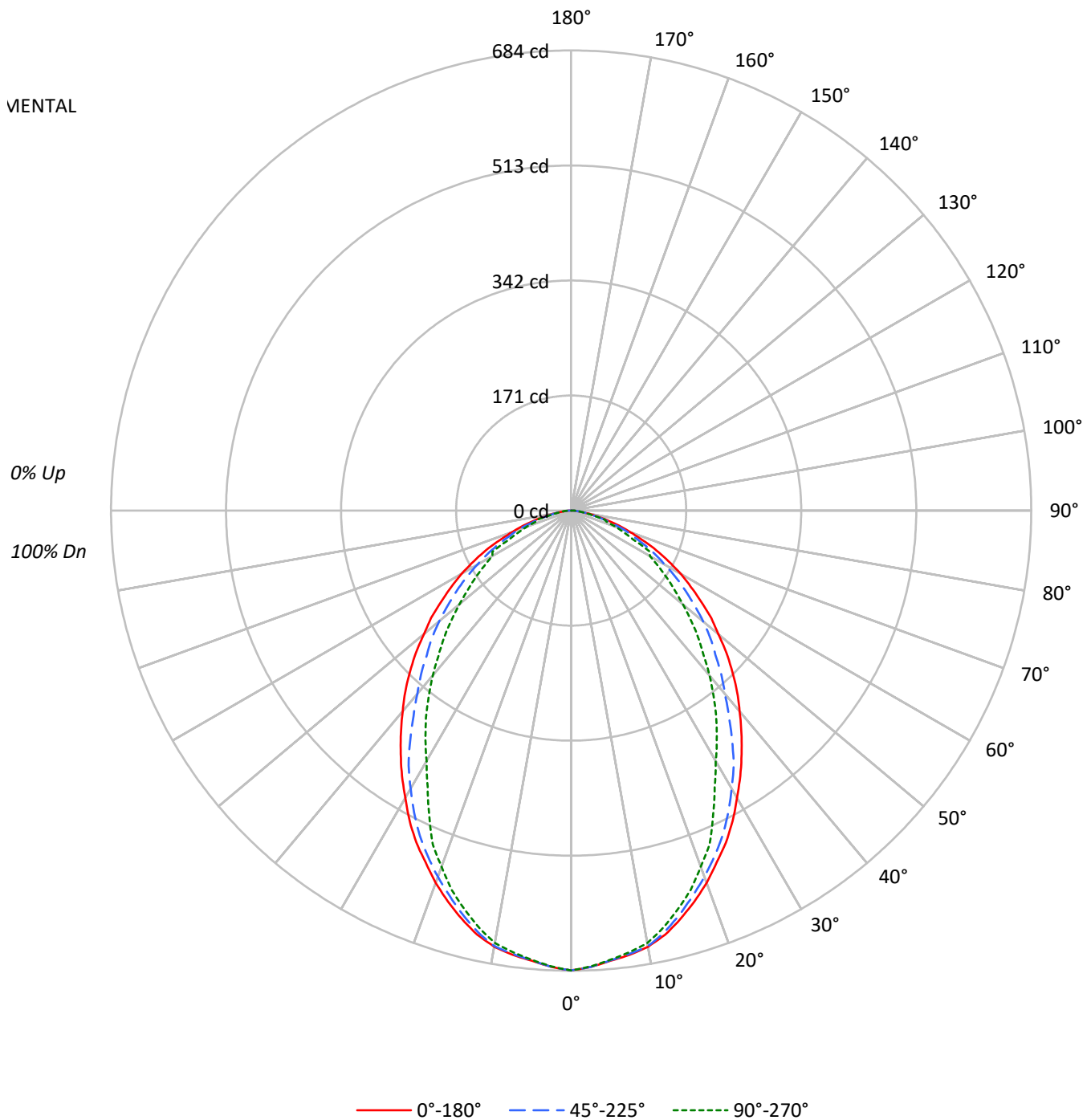
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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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°	7358	7358	7358
5°	7258	7250	7242
10°	7195	7186	7135
15°	7002	6931	6834
20°	6745	6636	6455
25°	6467	6327	5932
30°	6129	5932	5343
35°	5805	5483	4943
40°	5474	4997	4498
45°	5160	4620	4066
50°	4778	4289	3625
55°	4419	3887	3248
60°	4049	3470	2908
65°	3563	3039	2578
70°	2936	2662	2187
75°	2333	2038	2138
80°	1568	1469	1370
85°	976	1173	1371

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5160 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	4.7
10°-20°	174.6	13.0
20°-30°	241.8	18.0
30°-40°	257.8	19.2
40°-50°	235.2	17.5
50°-60°	184.3	13.7
60°-70°	120.1	8.9
70°-80°	53.2	4.0
80°-90°	11.4	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°	480.0	35.8
0°-40°	737.9	55.0
0°-60°	1157.3	86.2
0°-90°	1342.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1342.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	684	684	684	684	684	
5°	672	671	671	670	670	64
15°	628	628	622	616	613	177
25°	544	541	533	514	500	250
35°	442	439	417	386	376	276
45°	339	332	304	278	267	261
55°	236	228	207	183	173	211
65°	140	132	119	122	101	138
75°	56	52	49	47	51	60
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	683.6	683.6	683.6	683.6	683.6
2.5°	678.9	678.9	678.9	678.1	678.1
5°	671.7	671.0	671.0	670.2	670.2
7.5°	666.2	665.4	664.6	663.8	662.3
10°	658.3	658.3	657.5	653.6	652.8
12.5°	645.7	644.9	641.7	636.2	634.6
15°	628.3	628.3	622.0	615.6	613.3
17.5°	609.3	608.5	600.6	594.3	591.1
20°	588.8	587.2	579.3	569.0	563.5
22.5°	565.8	565.8	556.4	542.9	537.4
25°	544.5	541.3	532.7	513.7	499.5
27.5°	520.0	515.3	505.8	478.9	462.3
30°	493.1	490.8	477.3	442.6	429.9
32.5°	467.8	463.9	449.7	413.3	403.0
35°	441.8	438.6	417.3	385.7	376.2
37.5°	415.7	411.7	384.9	359.6	347.7
40°	389.6	384.9	355.6	332.7	320.1
42.5°	365.1	358.8	330.3	305.8	291.6
45°	339.0	331.9	303.5	278.2	267.1
47.5°	313.0	306.6	280.6	254.5	241.8
50°	285.3	279.8	256.1	230.0	216.5
52.5°	262.4	253.7	230.8	204.7	193.6
55°	235.5	228.4	207.1	182.6	173.1
57.5°	211.0	203.9	184.1	161.2	153.3
60°	188.1	177.8	161.2	141.5	135.1
62.5°	162.8	154.9	140.7	124.1	132.0
65°	139.9	132.0	119.3	121.7	101.2
67.5°	114.6	110.6	99.6	88.5	85.4
70°	93.3	88.5	84.6	72.7	69.5
72.5°	74.3	69.5	64.0	57.7	55.3
75°	56.1	52.2	49.0	46.6	51.4
77.5°	38.7	37.1	34.8	32.4	31.6
80°	25.3	24.5	23.7	22.9	22.1
82.5°	15.0	15.0	15.0	15.0	15.0
85°	7.9	8.7	9.5	10.3	11.1
87.5°	4.7	4.7	5.5	6.3	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)