

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: P559473

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559473
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-80-84-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1589.0 lumens
Efficiency: N/A
Efficacy: 95.7 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

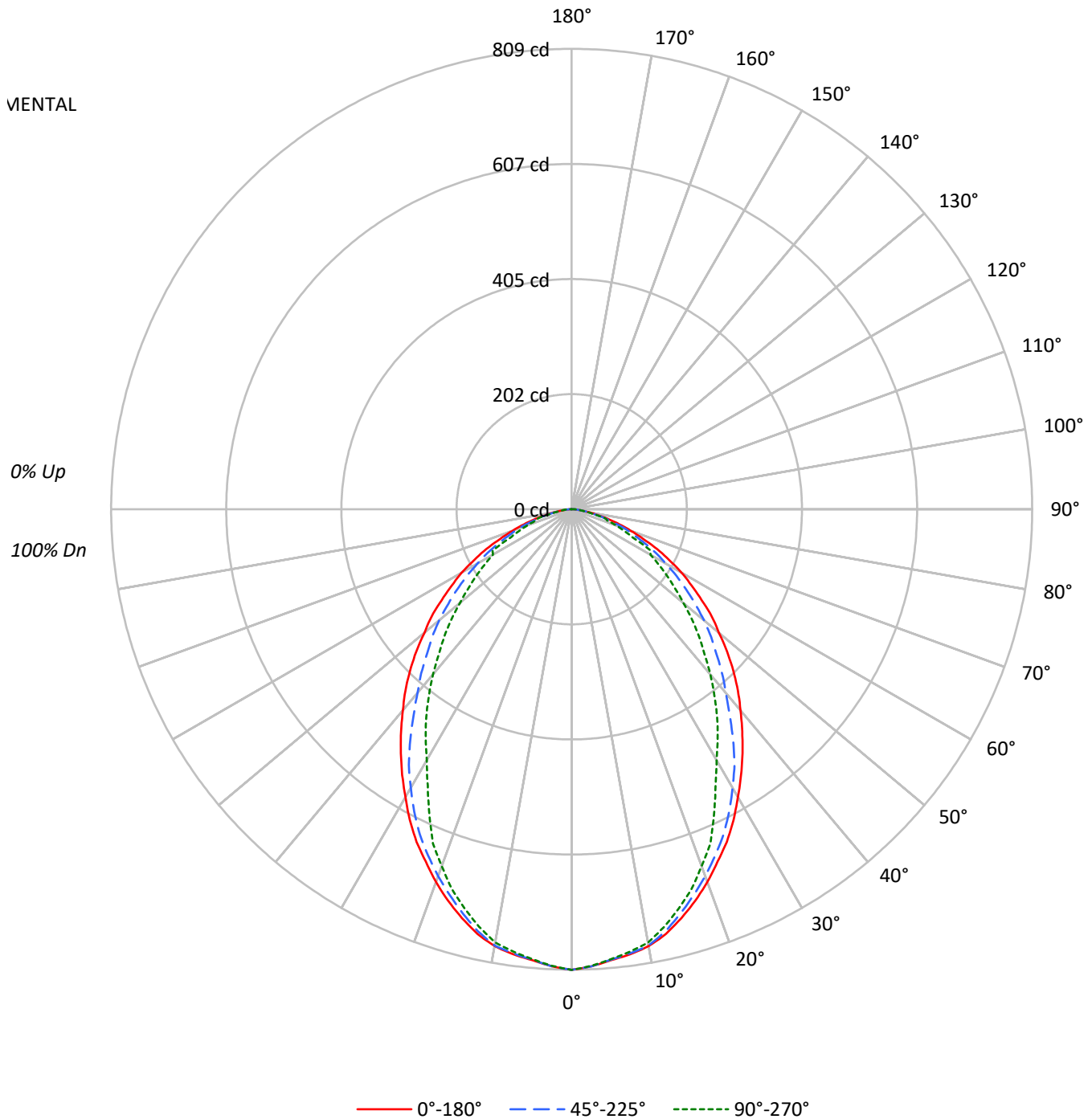
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8712	8712	8712
5°	8594	8584	8574
10°	8520	8509	8448
15°	8290	8206	8091
20°	7985	7857	7643
25°	7657	7491	7024
30°	7257	7025	6326
35°	6874	6493	5853
40°	6482	5917	5325
45°	6110	5469	4815
50°	5657	5077	4294
55°	5234	4601	3845
60°	4794	4110	3444
65°	4218	3599	3051
70°	3474	3150	2590
75°	2761	2412	2529
80°	1853	1742	1624
85°	1161	1383	1618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6110 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	4.7
10°-20°	206.8	13.0
20°-30°	286.3	18.0
30°-40°	305.2	19.2
40°-50°	278.5	17.5
50°-60°	218.2	13.7
60°-70°	142.2	8.9
70°-80°	63.0	4.0
80°-90°	13.5	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°	568.4	35.8
0°-40°	873.6	55.0
0°-60°	1370.3	86.2
0°-90°	1589.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1589.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	809	809	809	809	809	
5°	795	794	794	794	794	76
15°	744	744	736	729	726	209
25°	645	641	631	608	591	296
35°	523	519	494	457	445	327
45°	401	393	359	329	316	309
55°	279	270	245	216	205	250
65°	166	156	141	144	120	163
75°	66	62	58	55	61	71
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	809.4	809.4	809.4	809.4	809.4
2.5°	803.8	803.8	803.8	802.9	802.9
5°	795.4	794.4	794.4	793.5	793.5
7.5°	788.8	787.9	787.0	786.0	784.2
10°	779.5	779.5	778.5	773.9	772.9
12.5°	764.5	763.6	759.8	753.3	751.4
15°	743.9	743.9	736.4	728.9	726.1
17.5°	721.5	720.5	711.2	703.7	699.9
20°	697.1	695.3	685.9	673.7	667.2
22.5°	670.0	670.0	658.8	642.9	636.3
25°	644.7	641.0	630.7	608.2	591.4
27.5°	615.7	610.1	598.9	567.1	547.4
30°	583.9	581.1	565.2	524.0	509.0
32.5°	554.0	549.3	532.4	489.4	477.2
35°	523.1	519.3	494.1	456.6	445.4
37.5°	492.2	487.5	455.7	425.8	411.7
40°	461.3	455.7	421.1	393.9	379.0
42.5°	432.3	424.8	391.1	362.1	345.3
45°	401.4	393.0	359.3	329.4	316.3
47.5°	370.6	363.1	332.2	301.3	286.3
50°	337.8	331.3	303.2	272.3	256.4
52.5°	310.7	300.4	273.2	242.4	229.3
55°	278.9	270.4	245.2	216.2	204.9
57.5°	249.8	241.4	218.0	190.9	181.5
60°	222.7	210.5	190.9	167.5	160.0
62.5°	192.8	183.4	166.6	146.9	156.3
65°	165.6	156.3	141.3	144.1	119.8
67.5°	135.7	131.0	117.9	104.8	101.1
70°	110.4	104.8	100.1	86.1	82.3
72.5°	88.0	82.3	75.8	68.3	65.5
75°	66.4	61.8	58.0	55.2	60.8
77.5°	45.9	44.0	41.2	38.4	37.4
80°	29.9	29.0	28.1	27.1	26.2
82.5°	17.8	17.8	17.8	17.8	17.8
85°	9.4	10.3	11.2	12.2	13.1
87.5°	5.6	5.6	6.6	7.5	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)