

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: P559224

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559224
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-LD4-2LO-35-UNV-80-88-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 830.0 lumens
Efficiency: N/A
Efficacy: 70.9 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

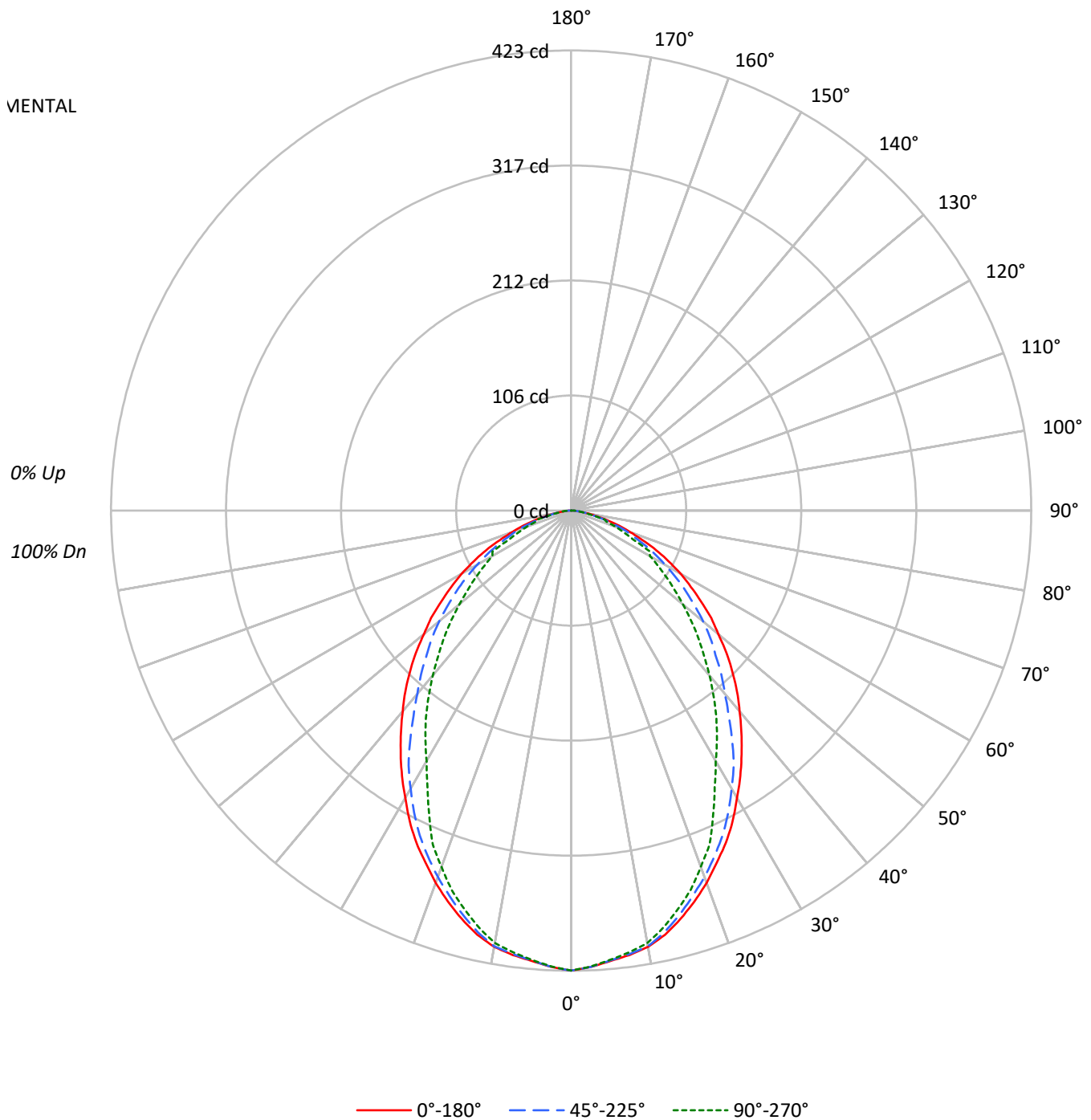
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4551	4551	4551
5°	4489	4484	4479
10°	4451	4445	4412
15°	4330	4287	4227
20°	4171	4104	3992
25°	4000	3912	3669
30°	3791	3669	3305
35°	3590	3392	3058
40°	3386	3090	2782
45°	3192	2857	2515
50°	2954	2653	2242
55°	2734	2404	2008
60°	2504	2146	1800
65°	2203	1880	1594
70°	1816	1646	1353
75°	1443	1260	1323
80°	967	911	849
85°	605	729	840

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3192 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.4	4.7
10°-20°	108.0	13.0
20°-30°	149.5	18.0
30°-40°	159.4	19.2
40°-50°	145.5	17.5
50°-60°	114.0	13.7
60°-70°	74.3	8.9
70°-80°	32.9	4.0
80°-90°	7.1	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°	296.9	35.8
0°-40°	456.4	55.0
0°-60°	715.8	86.2
0°-90°	830.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	830.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	423	423	423	423	423	
5°	416	415	415	414	414	39
15°	389	389	385	381	379	109
25°	337	335	329	318	309	155
35°	273	271	258	238	233	171
45°	210	205	188	172	165	162
55°	146	141	128	113	107	131
65°	86	82	74	75	63	85
75°	35	32	30	29	32	37
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	422.8	422.8	422.8	422.8	422.8
2.5°	419.9	419.9	419.9	419.4	419.4
5°	415.5	415.0	415.0	414.5	414.5
7.5°	412.0	411.5	411.1	410.6	409.6
10°	407.2	407.2	406.7	404.2	403.7
12.5°	399.3	398.8	396.9	393.5	392.5
15°	388.6	388.6	384.7	380.8	379.3
17.5°	376.8	376.4	371.5	367.6	365.6
20°	364.1	363.2	358.3	351.9	348.5
22.5°	350.0	350.0	344.1	335.8	332.4
25°	336.8	334.8	329.4	317.7	308.9
27.5°	321.6	318.7	312.8	296.2	285.9
30°	305.0	303.5	295.2	273.7	265.9
32.5°	289.4	286.9	278.1	255.6	249.3
35°	273.2	271.3	258.1	238.5	232.7
37.5°	257.1	254.7	238.0	222.4	215.1
40°	241.0	238.0	219.9	205.8	198.0
42.5°	225.8	221.9	204.3	189.2	180.4
45°	209.7	205.3	187.7	172.0	165.2
47.5°	193.6	189.6	173.5	157.4	149.6
50°	176.4	173.0	158.4	142.2	133.9
52.5°	162.3	156.9	142.7	126.6	119.8
55°	145.7	141.3	128.1	112.9	107.0
57.5°	130.5	126.1	113.9	99.7	94.8
60°	116.3	110.0	99.7	87.5	83.6
62.5°	100.7	95.8	87.0	76.7	81.6
65°	86.5	81.6	73.8	75.3	62.6
67.5°	70.9	68.4	61.6	54.7	52.8
70°	57.7	54.7	52.3	45.0	43.0
72.5°	45.9	43.0	39.6	35.7	34.2
75°	34.7	32.3	30.3	28.8	31.8
77.5°	24.0	23.0	21.5	20.0	19.6
80°	15.6	15.2	14.7	14.2	13.7
82.5°	9.3	9.3	9.3	9.3	9.3
85°	4.9	5.4	5.9	6.4	6.8
87.5°	2.9	2.9	3.4	3.9	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)