

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: P559230

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559230
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-80-97-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

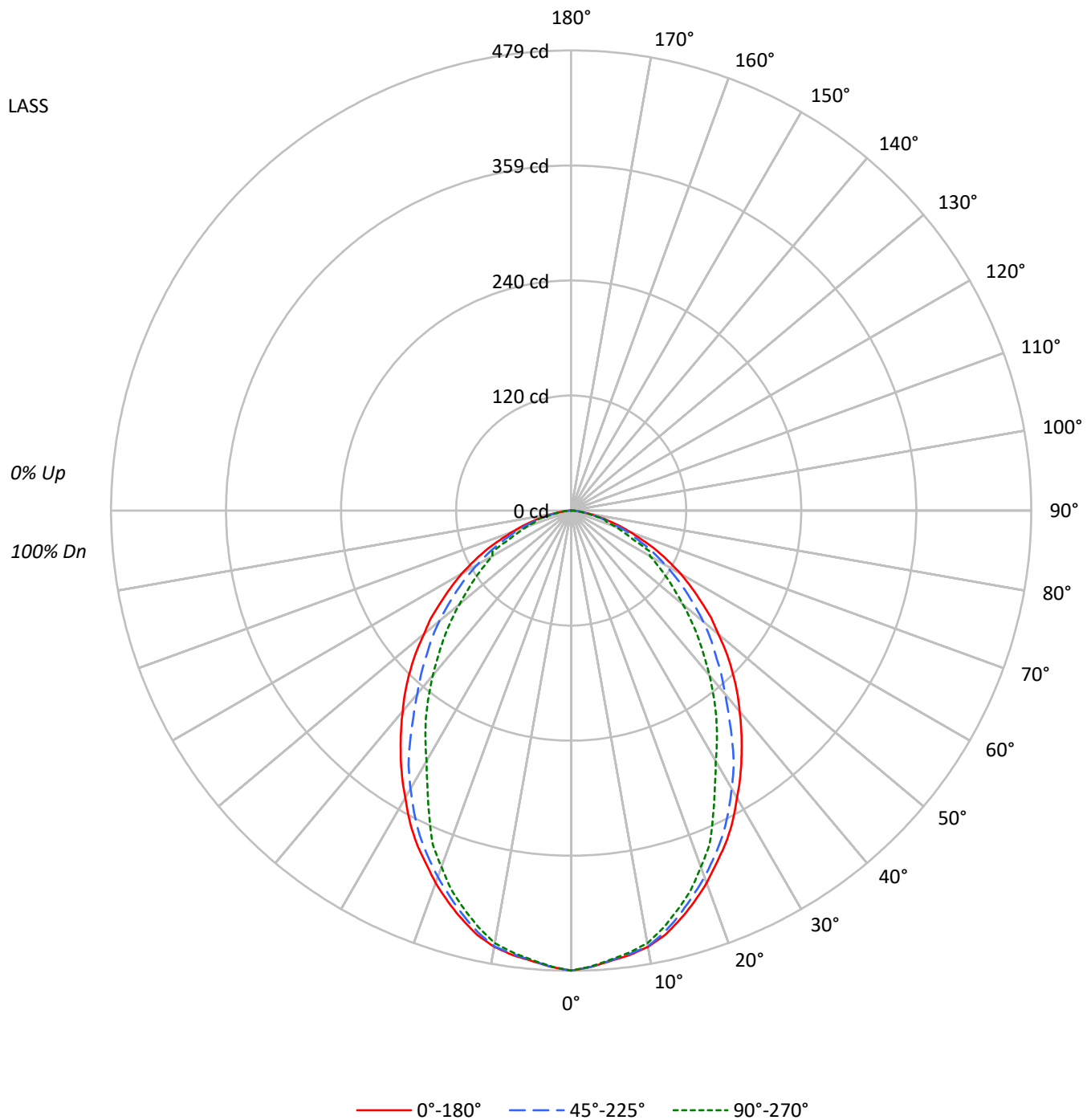
Lumens per Lamp: N/A
Luminaire Lumens: 940.0 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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	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°	5154	5154	5154
5°	5084	5078	5072
10°	5040	5034	4997
15°	4904	4854	4787
20°	4724	4648	4521
25°	4530	4431	4154
30°	4293	4155	3742
35°	4066	3841	3462
40°	3835	3500	3150
45°	3615	3236	2848
50°	3346	3004	2540
55°	3096	2721	2274
60°	2835	2430	2039
65°	2496	2129	1806
70°	2055	1863	1533
75°	1634	1426	1497
80°	1097	1029	961
85°	679	815	951

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3615 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.6	4.7
10°-20°	122.3	13.0
20°-30°	169.3	18.0
30°-40°	180.6	19.2
40°-50°	164.7	17.5
50°-60°	129.1	13.7
60°-70°	84.1	8.9
70°-80°	37.3	4.0
80°-90°	8.0	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°	336.2	35.8
0°-40°	516.8	55.0
0°-60°	810.6	86.2
0°-90°	940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	479	479	479	479	479	
5°	470	470	470	469	469	45
15°	440	440	436	431	430	124
25°	381	379	373	360	350	175
35°	309	307	292	270	264	193
45°	238	232	213	195	187	183
55°	165	160	145	128	121	148
65°	98	92	84	85	71	97
75°	39	36	34	33	36	42
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	478.8	478.8	478.8	478.8	478.8
2.5°	475.5	475.5	475.5	474.9	474.9
5°	470.5	470.0	470.0	469.4	469.4
7.5°	466.6	466.1	465.5	465.0	463.9
10°	461.1	461.1	460.6	457.8	457.2
12.5°	452.3	451.7	449.5	445.6	444.5
15°	440.1	440.1	435.6	431.2	429.6
17.5°	426.8	426.2	420.7	416.3	414.1
20°	412.4	411.3	405.8	398.6	394.7
22.5°	396.3	396.3	389.7	380.3	376.4
25°	381.4	379.2	373.1	359.8	349.8
27.5°	364.2	360.9	354.3	335.5	323.8
30°	345.4	343.8	334.3	310.0	301.1
32.5°	327.7	324.9	315.0	289.5	282.3
35°	309.4	307.2	292.3	270.1	263.5
37.5°	291.2	288.4	269.6	251.9	243.6
40°	272.9	269.6	249.1	233.0	224.2
42.5°	255.7	251.3	231.4	214.2	204.3
45°	237.5	232.5	212.6	194.9	187.1
47.5°	219.2	214.8	196.5	178.2	169.4
50°	199.8	196.0	179.4	161.1	151.7
52.5°	183.8	177.7	161.6	143.4	135.6
55°	165.0	160.0	145.0	127.9	121.2
57.5°	147.8	142.8	129.0	112.9	107.4
60°	131.7	124.5	112.9	99.1	94.7
62.5°	114.0	108.5	98.5	86.9	92.4
65°	98.0	92.4	83.6	85.2	70.9
67.5°	80.3	77.5	69.7	62.0	59.8
70°	65.3	62.0	59.2	50.9	48.7
72.5°	52.0	48.7	44.8	40.4	38.7
75°	39.3	36.5	34.3	32.7	36.0
77.5°	27.1	26.0	24.4	22.7	22.1
80°	17.7	17.2	16.6	16.1	15.5
82.5°	10.5	10.5	10.5	10.5	10.5
85°	5.5	6.1	6.6	7.2	7.7
87.5°	3.3	3.3	3.9	4.4	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)