

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: P559221

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-80-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559221
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-80-86-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

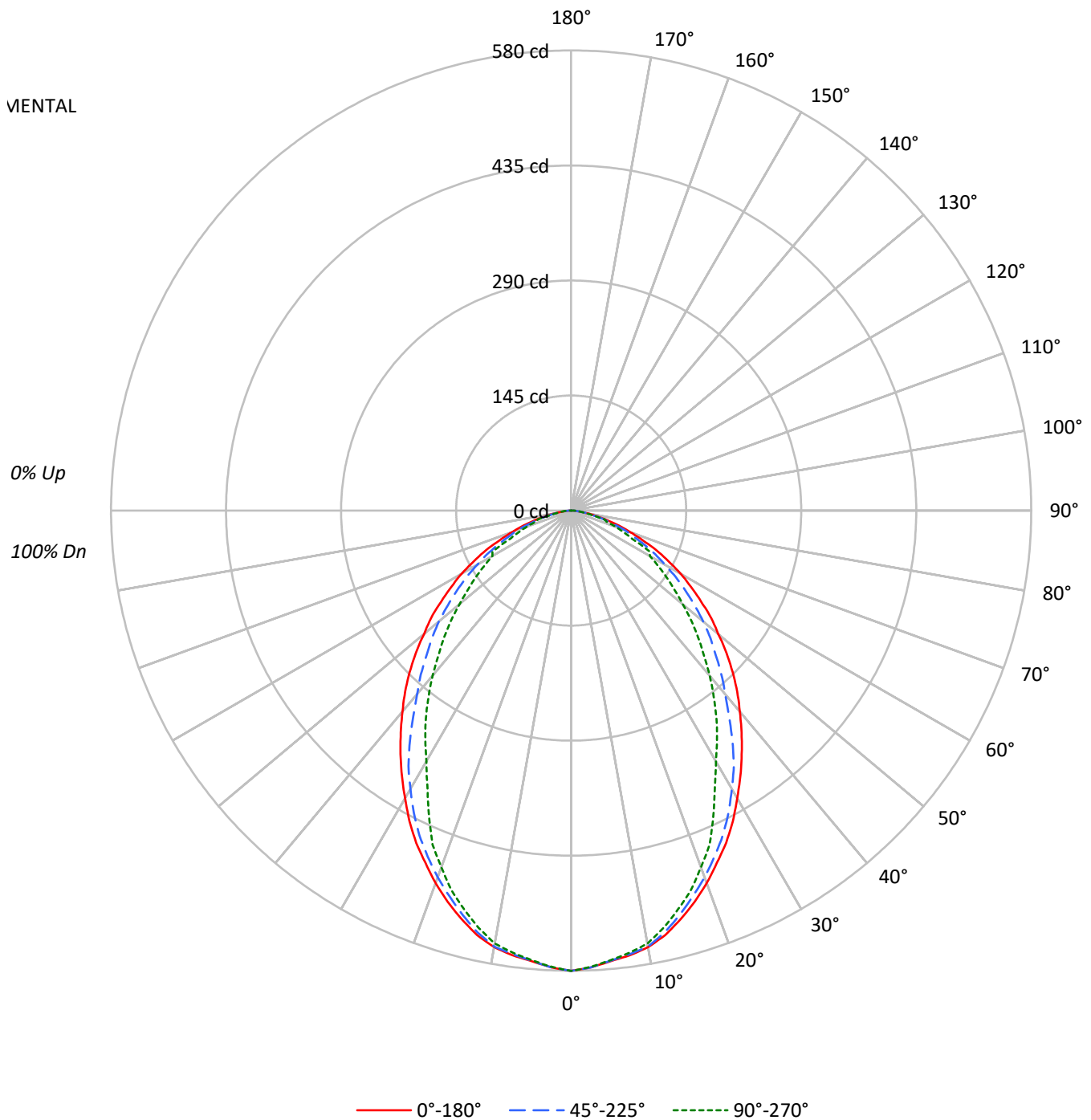
Lumens per Lamp: N/A
Luminaire Lumens: 1139.0 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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	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°	6245	6245	6245
5°	6160	6153	6146
10°	6107	6100	6055
15°	5942	5883	5800
20°	5724	5632	5478
25°	5488	5369	5035
30°	5202	5035	4535
35°	4926	4654	4196
40°	4647	4241	3818
45°	4380	3921	3451
50°	4054	3639	3078
55°	3751	3297	2757
60°	3436	2945	2469
65°	3023	2580	2188
70°	2489	2260	1857
75°	1980	1730	1813
80°	1333	1246	1165
85°	827	988	1161

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4380 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	4.7
10°-20°	148.2	13.0
20°-30°	205.2	18.0
30°-40°	218.8	19.2
40°-50°	199.6	17.5
50°-60°	156.4	13.7
60°-70°	101.9	8.9
70°-80°	45.2	4.0
80°-90°	9.7	0.8
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°	407.4	35.8
0°-40°	626.2	55.0
0°-60°	982.2	86.2
0°-90°	1139.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1139.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	570	570	570	569	569	54
15°	533	533	528	522	520	150
25°	462	460	452	436	424	212
35°	375	372	354	327	319	234
45°	288	282	258	236	227	222
55°	200	194	176	155	147	179
65°	119	112	101	103	86	117
75°	48	44	42	40	44	51
85°	7	7	8	9	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	580.2	580.2	580.2	580.2	580.2
2.5°	576.2	576.2	576.2	575.5	575.5
5°	570.1	569.5	569.5	568.8	568.8
7.5°	565.4	564.8	564.1	563.4	562.1
10°	558.7	558.7	558.1	554.7	554.0
12.5°	548.0	547.3	544.6	539.9	538.6
15°	533.2	533.2	527.9	522.5	520.5
17.5°	517.1	516.5	509.8	504.4	501.7
20°	499.7	498.4	491.7	482.9	478.2
22.5°	480.3	480.3	472.2	460.8	456.1
25°	462.1	459.5	452.1	436.0	423.9
27.5°	441.3	437.3	429.3	406.5	392.4
30°	418.5	416.5	405.1	375.6	364.9
32.5°	397.1	393.7	381.7	350.8	342.1
35°	374.9	372.3	354.2	327.3	319.3
37.5°	352.8	349.5	326.7	305.2	295.1
40°	330.7	326.7	301.8	282.4	271.7
42.5°	309.9	304.5	280.4	259.6	247.5
45°	287.7	281.7	257.6	236.1	226.7
47.5°	265.6	260.2	238.1	216.0	205.2
50°	242.1	237.4	217.3	195.2	183.8
52.5°	222.7	215.3	195.9	173.7	164.3
55°	199.9	193.8	175.7	154.9	146.9
57.5°	179.1	173.1	156.3	136.8	130.1
60°	159.6	150.9	136.8	120.1	114.7
62.5°	138.2	131.5	119.4	105.3	112.0
65°	118.7	112.0	101.3	103.3	85.9
67.5°	97.3	93.9	84.5	75.1	72.4
70°	79.1	75.1	71.8	61.7	59.0
72.5°	63.0	59.0	54.3	49.0	47.0
75°	47.6	44.3	41.6	39.6	43.6
77.5°	32.9	31.5	29.5	27.5	26.8
80°	21.5	20.8	20.1	19.5	18.8
82.5°	12.7	12.7	12.7	12.7	12.7
85°	6.7	7.4	8.0	8.7	9.4
87.5°	4.0	4.0	4.7	5.4	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)