

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: P558709

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-80-86-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558709  
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-LD4-1LO-40-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 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

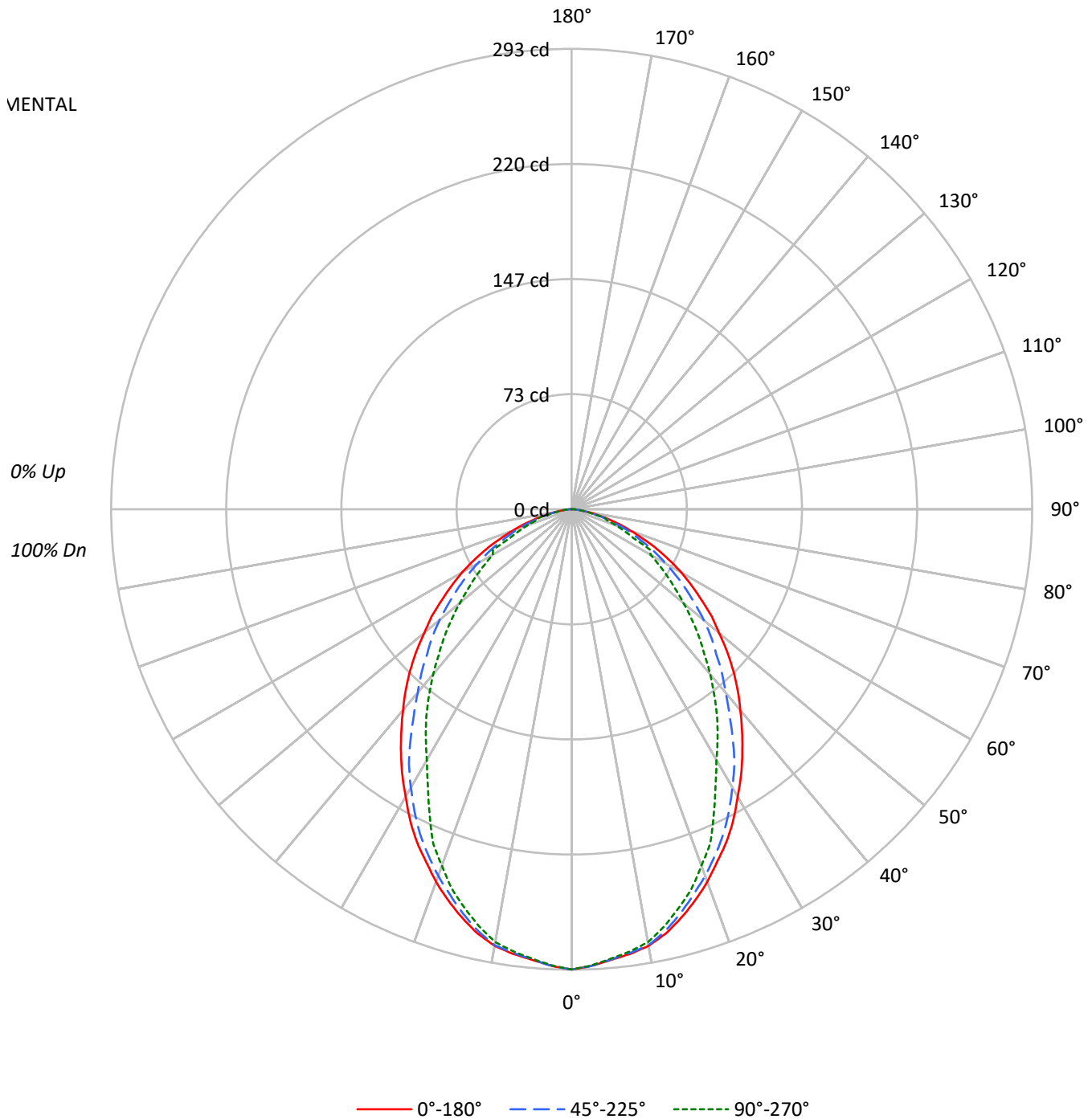
Lumens per Lamp: N/A  
Luminaire Lumens: 575.0 lumens  
Efficiency: N/A  
Efficacy: 99.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	3153	3153	3153
5°	3110	3106	3102
10°	3083	3079	3057
15°	3000	2970	2929
20°	2890	2843	2765
25°	2771	2710	2542
30°	2626	2542	2289
35°	2487	2349	2118
40°	2345	2141	1926
45°	2212	1979	1743
50°	2046	1837	1554
55°	1894	1665	1392
60°	1735	1488	1246
65°	1526	1301	1103
70°	1259	1139	938
75°	998	873	915
80°	669	632	589
85°	420	506	580

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2212 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.3	4.7
10°-20°	74.8	13.0
20°-30°	103.6	18.0
30°-40°	110.5	19.2
40°-50°	100.8	17.5
50°-60°	79.0	13.7
60°-70°	51.5	8.9
70°-80°	22.8	4.0
80°-90°	4.9	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°	205.7	35.8
0°-40°	316.1	55.0
0°-60°	495.9	86.2
0°-90°	575.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	575.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	293	293	293	293	293	
5°	288	288	288	287	287	27
15°	269	269	266	264	263	76
25°	233	232	228	220	214	107
35°	189	188	179	165	161	118
45°	145	142	130	119	114	112
55°	101	98	89	78	74	90
65°	60	56	51	52	43	59
75°	24	22	21	20	22	26
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	292.9	292.9	292.9	292.9	292.9
2.5°	290.9	290.9	290.9	290.5	290.5
5°	287.8	287.5	287.5	287.1	287.1
7.5°	285.4	285.1	284.8	284.4	283.8
10°	282.1	282.1	281.7	280.0	279.7
12.5°	276.6	276.3	275.0	272.6	271.9
15°	269.2	269.2	266.5	263.8	262.8
17.5°	261.1	260.7	257.3	254.6	253.3
20°	252.3	251.6	248.2	243.8	241.4
22.5°	242.4	242.4	238.4	232.6	230.3
25°	233.3	231.9	228.2	220.1	214.0
27.5°	222.8	220.8	216.7	205.2	198.1
30°	211.3	210.3	204.5	189.6	184.2
32.5°	200.5	198.8	192.7	177.1	172.7
35°	189.3	187.9	178.8	165.2	161.2
37.5°	178.1	176.4	164.9	154.1	149.0
40°	166.9	164.9	152.4	142.6	137.1
42.5°	156.4	153.7	141.5	131.0	124.9
45°	145.3	142.2	130.0	119.2	114.5
47.5°	134.1	131.4	120.2	109.0	103.6
50°	122.2	119.9	109.7	98.5	92.8
52.5°	112.4	108.7	98.9	87.7	83.0
55°	100.9	97.9	88.7	78.2	74.2
57.5°	90.4	87.4	78.9	69.1	65.7
60°	80.6	76.2	69.1	60.6	57.9
62.5°	69.8	66.4	60.3	53.2	56.5
65°	59.9	56.5	51.1	52.1	43.3
67.5°	49.1	47.4	42.7	37.9	36.6
70°	40.0	37.9	36.2	31.2	29.8
72.5°	31.8	29.8	27.4	24.7	23.7
75°	24.0	22.3	21.0	20.0	22.0
77.5°	16.6	15.9	14.9	13.9	13.5
80°	10.8	10.5	10.2	9.8	9.5
82.5°	6.4	6.4	6.4	6.4	6.4
85°	3.4	3.7	4.1	4.4	4.7
87.5°	2.0	2.0	2.4	2.7	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)