

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: P558877

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-82-96-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558877  
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-LD4-1STD-35-UNV-82-96-EDD  
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

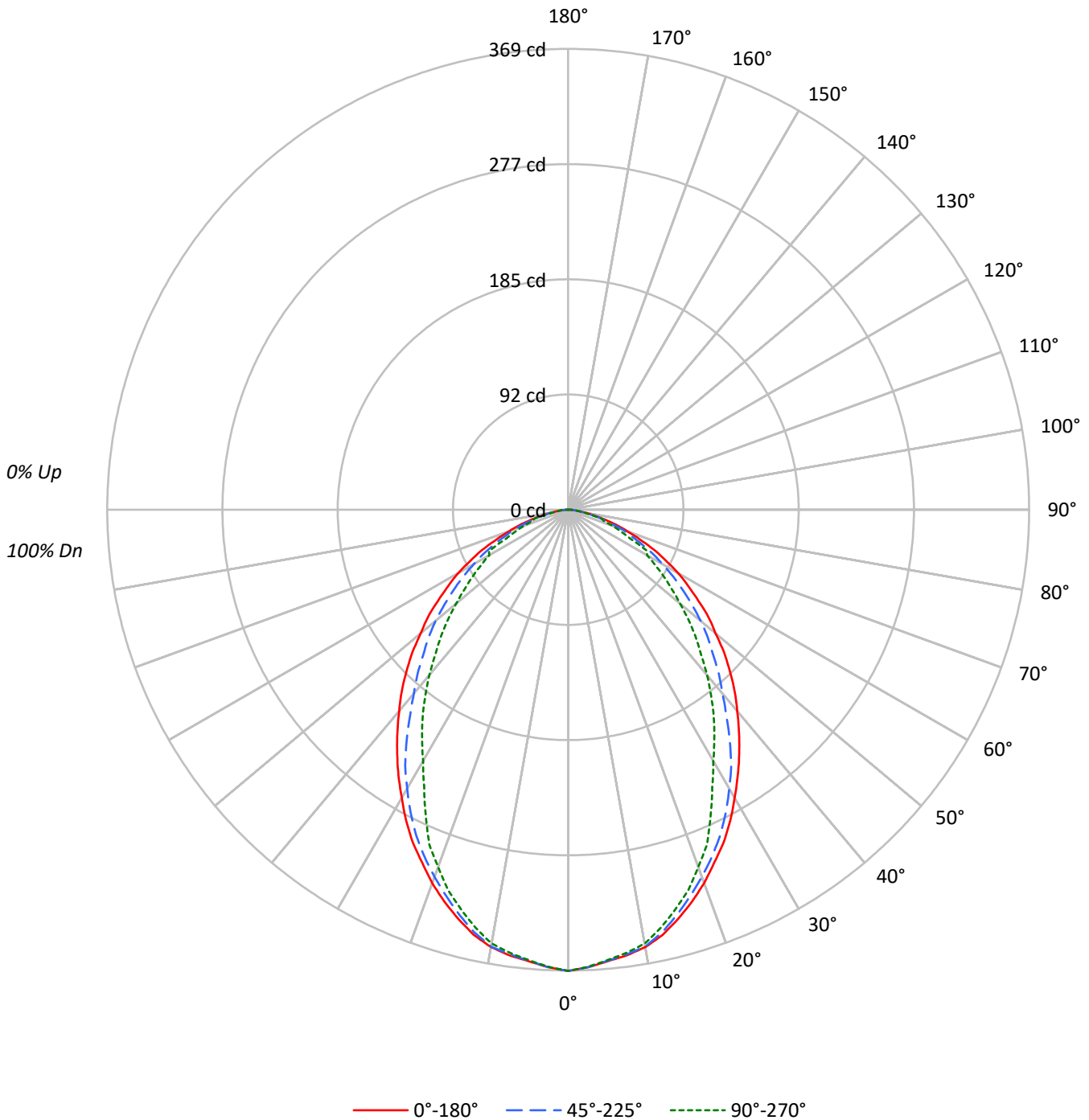
Lumens per Lamp: N/A  
Luminaire Lumens: 725.0 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	3975	3975	3975
5°	3921	3917	3911
10°	3887	3882	3855
15°	3782	3744	3692
20°	3644	3584	3487
25°	3494	3418	3204
30°	3311	3205	2887
35°	3137	2962	2670
40°	2958	2699	2429
45°	2789	2495	2197
50°	2581	2316	1959
55°	2387	2100	1755
60°	2187	1875	1572
65°	1926	1643	1391
70°	1586	1438	1183
75°	1260	1102	1156
80°	849	793	744
85°	531	630	741

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2789 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.4	4.7
10°-20°	94.3	13.0
20°-30°	130.6	18.0
30°-40°	139.3	19.2
40°-50°	127.1	17.5
50°-60°	99.5	13.7
60°-70°	64.9	8.9
70°-80°	28.8	4.0
80°-90°	6.2	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°	259.3	35.8
0°-40°	398.6	55.0
0°-60°	625.2	86.2
0°-90°	725.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	725.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	369	369	369	369	369	
5°	363	362	362	362	362	34
15°	339	339	336	333	331	95
25°	294	292	288	278	270	135
35°	239	237	225	208	203	149
45°	183	179	164	150	144	141
55°	127	123	112	99	94	114
65°	76	71	64	66	55	74
75°	30	28	26	25	28	32
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	369.3	369.3	369.3	369.3	369.3
2.5°	366.7	366.7	366.7	366.3	366.3
5°	362.9	362.5	362.5	362.0	362.0
7.5°	359.9	359.5	359.1	358.6	357.8
10°	355.6	355.6	355.2	353.1	352.7
12.5°	348.8	348.4	346.7	343.7	342.8
15°	339.4	339.4	336.0	332.6	331.3
17.5°	329.2	328.7	324.5	321.1	319.4
20°	318.1	317.2	312.9	307.4	304.4
22.5°	305.7	305.7	300.6	293.3	290.3
25°	294.2	292.5	287.8	277.5	269.8
27.5°	280.9	278.4	273.2	258.7	249.8
30°	266.4	265.1	257.9	239.1	232.3
32.5°	252.7	250.6	242.9	223.3	217.7
35°	238.7	237.0	225.4	208.3	203.2
37.5°	224.6	222.4	207.9	194.3	187.9
40°	210.5	207.9	192.1	179.7	172.9
42.5°	197.2	193.8	178.5	165.2	157.5
45°	183.2	179.3	163.9	150.3	144.3
47.5°	169.1	165.7	151.6	137.5	130.6
50°	154.1	151.1	138.3	124.2	117.0
52.5°	141.7	137.0	124.7	110.6	104.6
55°	127.2	123.4	111.9	98.6	93.5
57.5°	114.0	110.2	99.5	87.1	82.8
60°	101.6	96.1	87.1	76.4	73.0
62.5°	88.0	83.7	76.0	67.0	71.3
65°	75.6	71.3	64.5	65.7	54.6
67.5°	61.9	59.8	53.8	47.8	46.1
70°	50.4	47.8	45.7	39.3	37.6
72.5°	40.1	37.6	34.6	31.2	29.9
75°	30.3	28.2	26.5	25.2	27.8
77.5°	20.9	20.1	18.8	17.5	17.1
80°	13.7	13.2	12.8	12.4	12.0
82.5°	8.1	8.1	8.1	8.1	8.1
85°	4.3	4.7	5.1	5.6	6.0
87.5°	2.6	2.6	3.0	3.4	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)