

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: P558685

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

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558685  
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-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**

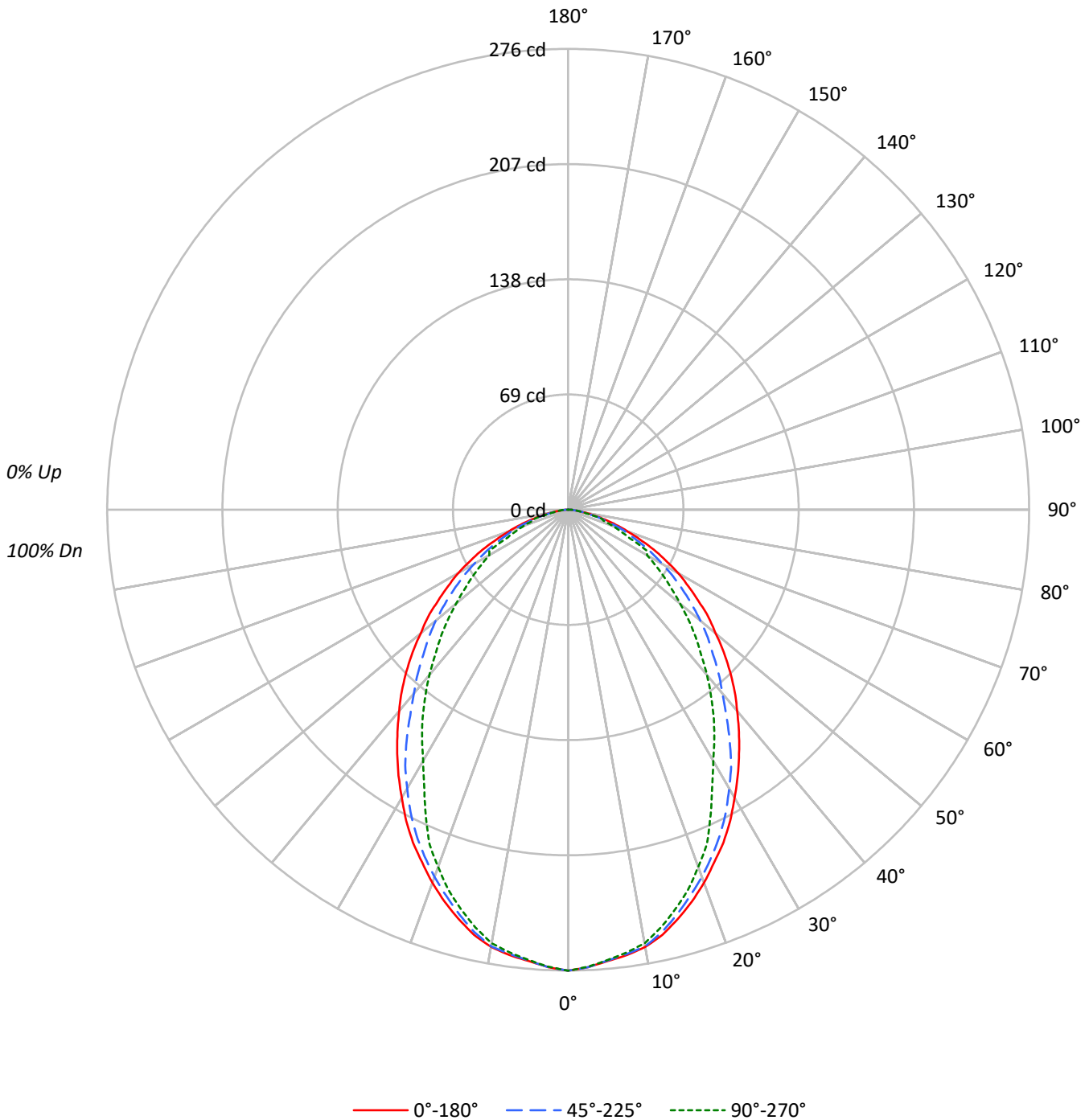
Lumens per Lamp: N/A  
Luminaire Lumens: 542.0 lumens  
Efficiency: N/A  
Efficacy: 93.5 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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	47	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°	2972	2972	2972
5°	2931	2928	2925
10°	2906	2903	2881
15°	2827	2799	2760
20°	2724	2680	2607
25°	2612	2555	2396
30°	2476	2396	2158
35°	2344	2214	1996
40°	2212	2018	1817
45°	2084	1866	1643
50°	1929	1732	1465
55°	1785	1569	1312
60°	1636	1401	1175
65°	1439	1228	1042
70°	1186	1076	884
75°	944	823	861
80°	632	595	552
85°	395	469	556

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2084 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.7	4.7
10°-20°	70.5	13.0
20°-30°	97.6	18.0
30°-40°	104.1	19.2
40°-50°	95.0	17.5
50°-60°	74.4	13.7
60°-70°	48.5	8.9
70°-80°	21.5	4.0
80°-90°	4.6	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°	193.9	35.8
0°-40°	298.0	55.0
0°-60°	467.4	86.2
0°-90°	542.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	542.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	276	276	276	276	276	
5°	271	271	271	271	271	26
15°	254	254	251	249	248	71
25°	220	219	215	208	202	101
35°	178	177	168	156	152	112
45°	137	134	123	112	108	105
55°	95	92	84	74	70	85
65°	56	53	48	49	41	56
75°	23	21	20	19	21	24
85°	3	4	4	4	4	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	276.1	276.1	276.1	276.1	276.1
2.5°	274.2	274.2	274.2	273.9	273.9
5°	271.3	271.0	271.0	270.7	270.7
7.5°	269.1	268.7	268.4	268.1	267.5
10°	265.9	265.9	265.6	264.0	263.6
12.5°	260.8	260.4	259.2	256.9	256.3
15°	253.7	253.7	251.2	248.6	247.7
17.5°	246.1	245.8	242.6	240.0	238.7
20°	237.8	237.1	234.0	229.8	227.6
22.5°	228.5	228.5	224.7	219.3	217.0
25°	219.9	218.6	215.1	207.5	201.7
27.5°	210.0	208.1	204.3	193.4	186.7
30°	199.2	198.2	192.8	178.7	173.6
32.5°	189.0	187.4	181.6	166.9	162.8
35°	178.4	177.1	168.5	155.8	151.9
37.5°	167.9	166.3	155.4	145.2	140.4
40°	157.4	155.4	143.6	134.4	129.3
42.5°	147.5	144.9	133.4	123.5	117.8
45°	136.9	134.1	122.6	112.4	107.9
47.5°	126.4	123.8	113.3	102.8	97.7
50°	115.2	113.0	103.4	92.9	87.5
52.5°	106.0	102.5	93.2	82.7	78.2
55°	95.1	92.2	83.6	73.7	69.9
57.5°	85.2	82.3	74.4	65.1	61.9
60°	76.0	71.8	65.1	57.1	54.6
62.5°	65.8	62.6	56.8	50.1	53.3
65°	56.5	53.3	48.2	49.2	40.9
67.5°	46.3	44.7	40.2	35.7	34.5
70°	37.7	35.7	34.2	29.4	28.1
72.5°	30.0	28.1	25.9	23.3	22.3
75°	22.7	21.1	19.8	18.8	20.7
77.5°	15.6	15.0	14.0	13.1	12.8
80°	10.2	9.9	9.6	9.3	8.9
82.5°	6.1	6.1	6.1	6.1	6.1
85°	3.2	3.5	3.8	4.1	4.5
87.5°	1.9	1.9	2.2	2.6	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)