

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: P558874

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-82-94-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558874  
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-82-94-EDD-90  
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

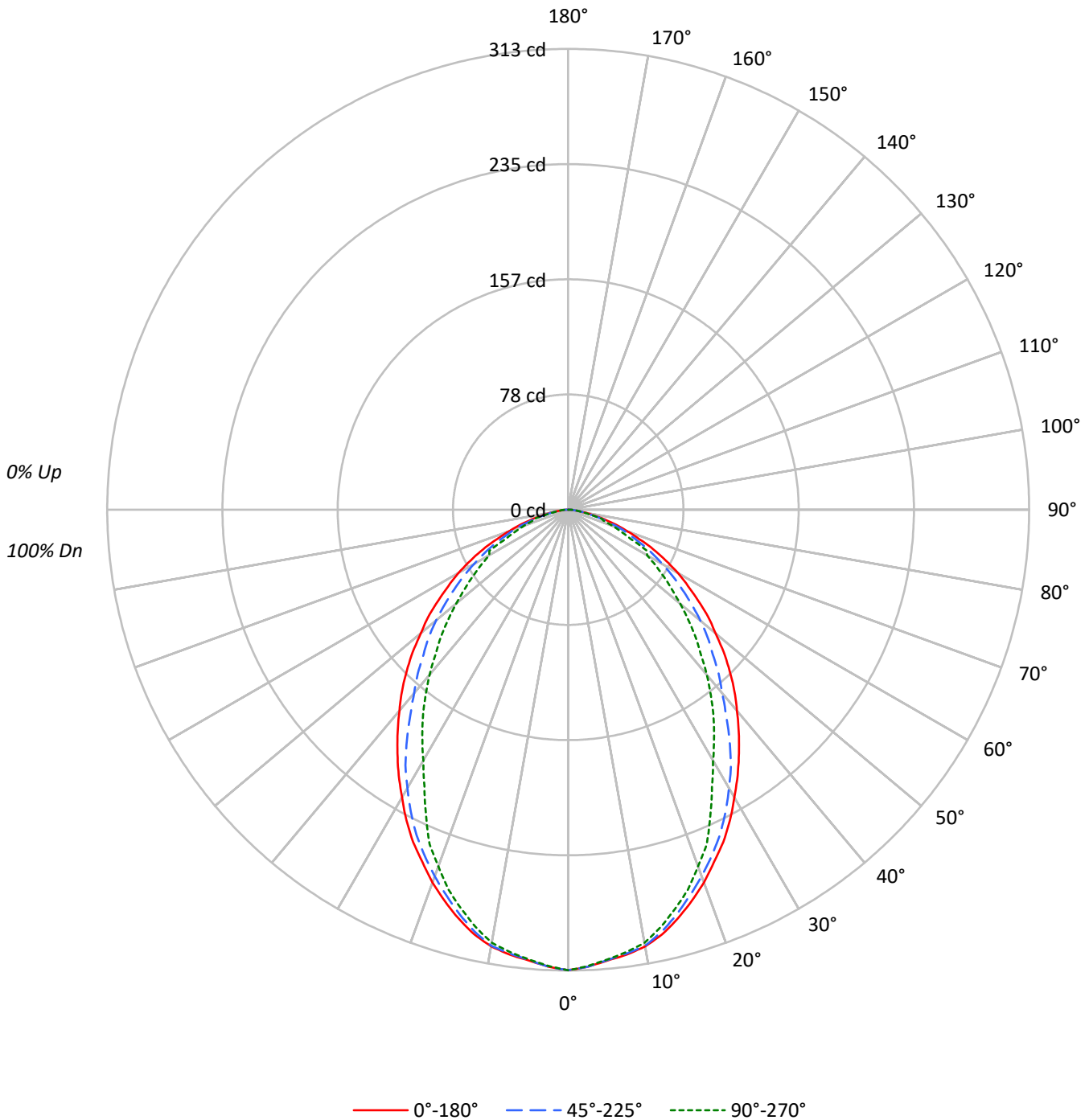
Lumens per Lamp: N/A  
Luminaire Lumens: 614.0 lumens  
Efficiency: N/A  
Efficacy: 74.0 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	3367	3367	3367
5°	3320	3317	3313
10°	3292	3288	3265
15°	3204	3171	3127
20°	3086	3036	2953
25°	2958	2894	2714
30°	2804	2715	2445
35°	2656	2508	2261
40°	2505	2286	2057
45°	2361	2113	1860
50°	2185	1963	1659
55°	2021	1777	1486
60°	1854	1589	1330
65°	1630	1391	1179
70°	1344	1218	1001
75°	1069	932	977
80°	719	669	626
85°	445	531	630

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2361 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.1	4.7
10°-20°	79.9	13.0
20°-30°	110.6	18.0
30°-40°	117.9	19.2
40°-50°	107.6	17.5
50°-60°	84.3	13.7
60°-70°	55.0	9.0
70°-80°	24.3	4.0
80°-90°	5.2	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°	219.6	35.8
0°-40°	337.6	55.0
0°-60°	529.5	86.2
0°-90°	614.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	614.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	313	313	313	313	313	
5°	307	307	307	307	307	29
15°	288	288	285	282	281	81
25°	249	248	244	235	228	114
35°	202	201	191	176	172	126
45°	155	152	139	127	122	119
55°	108	104	95	84	79	97
65°	64	60	55	56	46	63
75°	26	24	22	21	24	28
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	312.8	312.8	312.8	312.8	312.8
2.5°	310.6	310.6	310.6	310.2	310.2
5°	307.3	307.0	307.0	306.6	306.6
7.5°	304.8	304.4	304.1	303.7	303.0
10°	301.2	301.2	300.8	299.0	298.7
12.5°	295.4	295.0	293.6	291.1	290.3
15°	287.5	287.5	284.6	281.7	280.6
17.5°	278.8	278.4	274.8	271.9	270.5
20°	269.4	268.7	265.0	260.3	257.8
22.5°	258.9	258.9	254.5	248.4	245.9
25°	249.1	247.7	243.7	235.0	228.5
27.5°	237.9	235.7	231.4	219.1	211.5
30°	225.6	224.5	218.4	202.5	196.7
32.5°	214.1	212.2	205.7	189.1	184.4
35°	202.1	200.7	190.9	176.4	172.1
37.5°	190.2	188.4	176.1	164.5	159.1
40°	178.3	176.1	162.7	152.2	146.4
42.5°	167.0	164.2	151.1	139.9	133.4
45°	155.1	151.9	138.8	127.3	122.2
47.5°	143.2	140.3	128.4	116.4	110.6
50°	130.5	128.0	117.2	105.2	99.1
52.5°	120.0	116.1	105.6	93.6	88.6
55°	107.7	104.5	94.7	83.5	79.2
57.5°	96.5	93.3	84.2	73.8	70.1
60°	86.1	81.4	73.8	64.7	61.8
62.5°	74.5	70.9	64.4	56.8	60.4
65°	64.0	60.4	54.6	55.7	46.3
67.5°	52.4	50.6	45.6	40.5	39.1
70°	42.7	40.5	38.7	33.3	31.8
72.5°	34.0	31.8	29.3	26.4	25.3
75°	25.7	23.9	22.4	21.3	23.5
77.5°	17.7	17.0	15.9	14.8	14.5
80°	11.6	11.2	10.8	10.5	10.1
82.5°	6.9	6.9	6.9	6.9	6.9
85°	3.6	4.0	4.3	4.7	5.1
87.5°	2.2	2.2	2.5	2.9	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)