

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: P558457

Luminaire Tested: FSR-12-1-LD4-1HI-35-UNV-80-88-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558457  
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-LD4-1HI-35-UNV-80-88-EDD  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON  
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

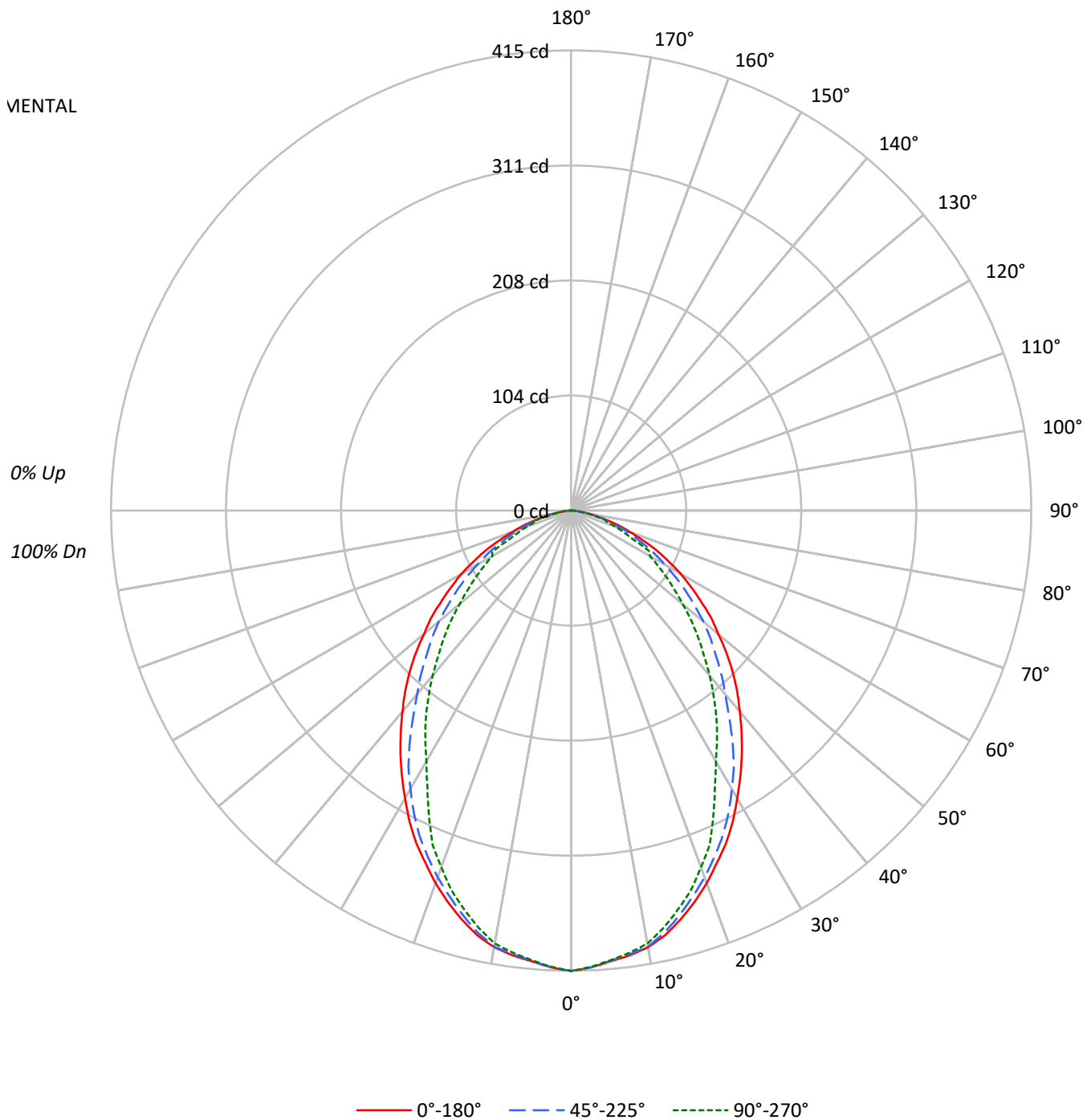
Lumens per Lamp: N/A  
Luminaire Lumens: 815.0 lumens  
Efficiency: N/A  
Efficacy: 75.5 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 10.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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	48	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°	4469	4469	4469
5°	4408	4403	4398
10°	4370	4364	4333
15°	4252	4209	4150
20°	4096	4030	3920
25°	3928	3842	3602
30°	3723	3603	3245
35°	3526	3330	3003
40°	3325	3035	2732
45°	3134	2806	2469
50°	2902	2604	2202
55°	2684	2359	1972
60°	2458	2108	1767
65°	2162	1847	1564
70°	1781	1618	1328
75°	1418	1239	1298
80°	955	893	831
85°	593	716	827

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3134 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.6	4.7
10°-20°	106.1	13.0
20°-30°	146.8	18.0
30°-40°	156.6	19.2
40°-50°	142.8	17.5
50°-60°	111.9	13.7
60°-70°	72.9	8.9
70°-80°	32.3	4.0
80°-90°	6.9	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°	291.5	35.8
0°-40°	448.1	55.0
0°-60°	702.8	86.2
0°-90°	815.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	815.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	415	415	415	415	415	
5°	408	408	408	407	407	39
15°	382	382	378	374	372	107
25°	331	329	324	312	303	152
35°	268	266	253	234	228	168
45°	206	202	184	169	162	159
55°	143	139	126	111	105	128
65°	85	80	72	74	61	84
75°	34	32	30	28	31	37
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	415.2	415.2	415.2	415.2	415.2
2.5°	412.3	412.3	412.3	411.8	411.8
5°	408.0	407.5	407.5	407.0	407.0
7.5°	404.6	404.1	403.6	403.2	402.2
10°	399.8	399.8	399.3	396.9	396.4
12.5°	392.1	391.6	389.7	386.4	385.4
15°	381.6	381.6	377.7	373.9	372.4
17.5°	370.0	369.6	364.8	360.9	359.0
20°	357.6	356.6	351.8	345.6	342.2
22.5°	343.6	343.6	337.9	329.7	326.4
25°	330.7	328.8	323.5	312.0	303.3
27.5°	315.8	312.9	307.2	290.8	280.8
30°	299.5	298.0	289.9	268.8	261.1
32.5°	284.1	281.7	273.1	251.0	244.8
35°	268.3	266.4	253.4	234.2	228.5
37.5°	252.4	250.0	233.7	218.4	211.2
40°	236.6	233.7	216.0	202.1	194.4
42.5°	221.7	217.9	200.6	185.7	177.1
45°	205.9	201.6	184.3	168.9	162.2
47.5°	190.1	186.2	170.4	154.5	146.9
50°	173.3	169.9	155.5	139.7	131.5
52.5°	159.3	154.1	140.1	124.3	117.6
55°	143.0	138.7	125.7	110.9	105.1
57.5°	128.1	123.8	111.8	97.9	93.1
60°	114.2	108.0	97.9	85.9	82.1
62.5°	98.9	94.1	85.4	75.4	80.2
65°	84.9	80.2	72.5	73.9	61.4
67.5°	69.6	67.2	60.5	53.8	51.8
70°	56.6	53.8	51.4	44.2	42.2
72.5°	45.1	42.2	38.9	35.0	33.6
75°	34.1	31.7	29.8	28.3	31.2
77.5°	23.5	22.6	21.1	19.7	19.2
80°	15.4	14.9	14.4	13.9	13.4
82.5°	9.1	9.1	9.1	9.1	9.1
85°	4.8	5.3	5.8	6.2	6.7
87.5°	2.9	2.9	3.4	3.8	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)