

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: P558973

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-80-96-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558973  
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-50-UNV-80-96-EDD  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

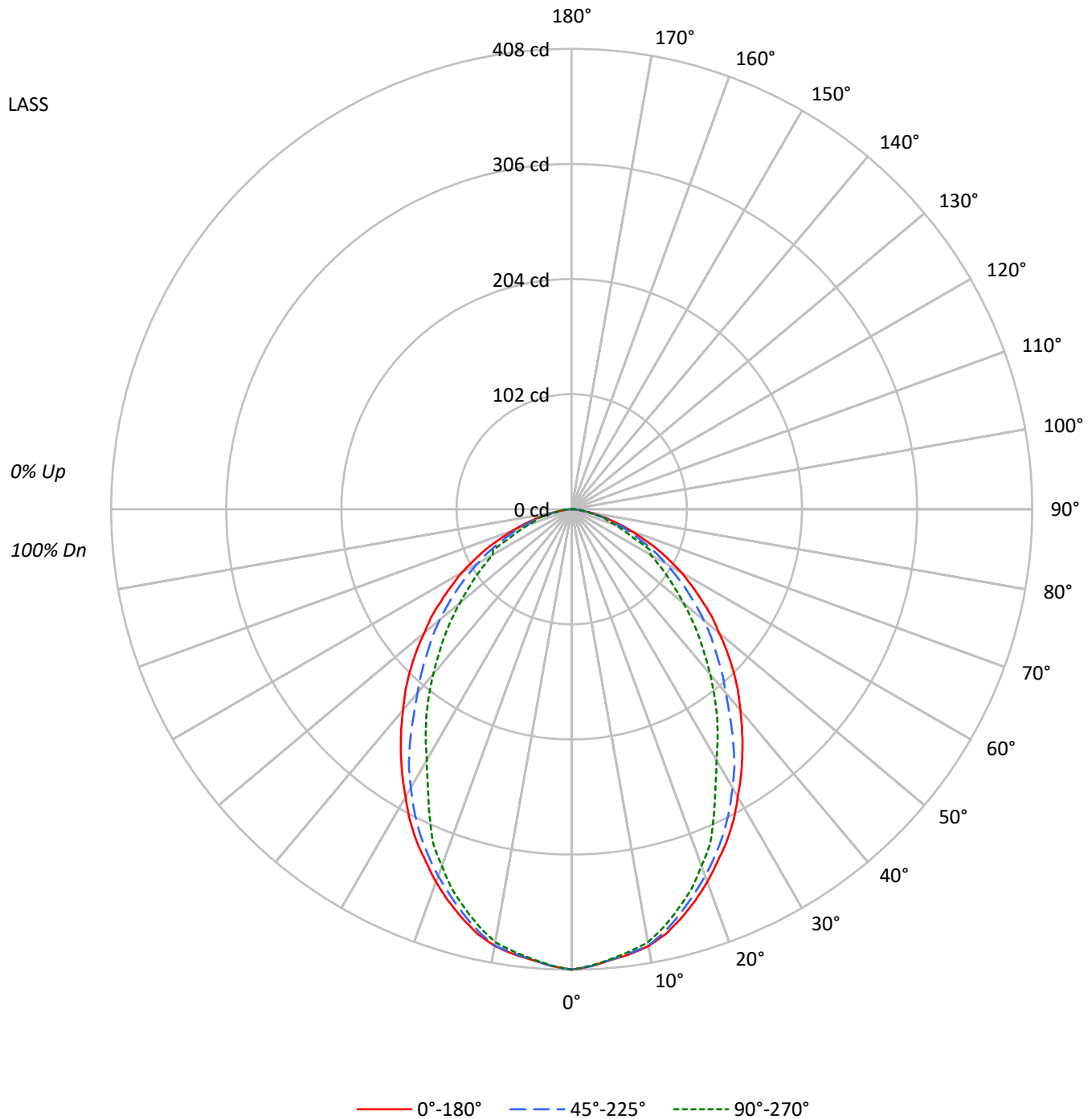
Lumens per Lamp: N/A  
Luminaire Lumens: 801.0 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	4392	4392	4392
5°	4332	4327	4322
10°	4294	4290	4258
15°	4179	4137	4079
20°	4025	3961	3852
25°	3860	3776	3540
30°	3658	3541	3189
35°	3465	3273	2950
40°	3267	2983	2684
45°	3081	2757	2426
50°	2852	2559	2164
55°	2639	2320	1939
60°	2418	2071	1737
65°	2127	1813	1538
70°	1753	1589	1306
75°	1393	1214	1277
80°	936	880	818
85°	580	704	815

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3081 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.0	4.7
10°-20°	104.2	13.0
20°-30°	144.3	18.0
30°-40°	153.9	19.2
40°-50°	140.4	17.5
50°-60°	110.0	13.7
60°-70°	71.7	8.9
70°-80°	31.7	4.0
80°-90°	6.8	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°	286.5	35.8
0°-40°	440.4	55.0
0°-60°	690.7	86.2
0°-90°	801.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	801.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	401	400	400	400	400	38
15°	375	375	371	368	366	105
25°	325	323	318	307	298	149
35°	264	262	249	230	224	165
45°	202	198	181	166	159	156
55°	141	136	124	109	103	126
65°	84	79	71	73	60	82
75°	34	31	29	28	31	36
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°	408.0	408.0	408.0	408.0	408.0
2.5°	405.2	405.2	405.2	404.7	404.7
5°	400.9	400.5	400.5	400.0	400.0
7.5°	397.6	397.2	396.7	396.2	395.3
10°	392.9	392.9	392.5	390.1	389.6
12.5°	385.4	384.9	383.0	379.7	378.8
15°	375.0	375.0	371.2	367.5	366.0
17.5°	363.7	363.2	358.5	354.7	352.8
20°	351.4	350.5	345.8	339.6	336.3
22.5°	337.7	337.7	332.1	324.1	320.8
25°	325.0	323.1	317.9	306.6	298.1
27.5°	310.4	307.5	301.9	285.8	275.9
30°	294.3	292.9	284.9	264.2	256.6
32.5°	279.2	276.9	268.4	246.7	240.6
35°	263.7	261.8	249.1	230.2	224.5
37.5°	248.1	245.8	229.7	214.6	207.5
40°	232.5	229.7	212.3	198.6	191.0
42.5°	217.9	214.2	197.2	182.5	174.1
45°	202.4	198.1	181.1	166.0	159.4
47.5°	186.8	183.0	167.5	151.9	144.3
50°	170.3	167.0	152.8	137.3	129.2
52.5°	156.6	151.4	137.7	122.2	115.6
55°	140.6	136.3	123.6	109.0	103.3
57.5°	125.9	121.7	109.9	96.2	91.5
60°	112.3	106.1	96.2	84.4	80.7
62.5°	97.2	92.5	84.0	74.1	78.8
65°	83.5	78.8	71.2	72.6	60.4
67.5°	68.4	66.0	59.4	52.8	50.9
70°	55.7	52.8	50.5	43.4	41.5
72.5°	44.3	41.5	38.2	34.4	33.0
75°	33.5	31.1	29.2	27.8	30.7
77.5°	23.1	22.2	20.8	19.3	18.9
80°	15.1	14.6	14.2	13.7	13.2
82.5°	9.0	9.0	9.0	9.0	9.0
85°	4.7	5.2	5.7	6.1	6.6
87.5°	2.8	2.8	3.3	3.8	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)