

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: P559675

Luminaire Tested: FSR-12-2-LD4-1HI-40-UNV-80-94-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559675  
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-12-2-LD4-1HI-40-UNV-80-94-EDD  
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

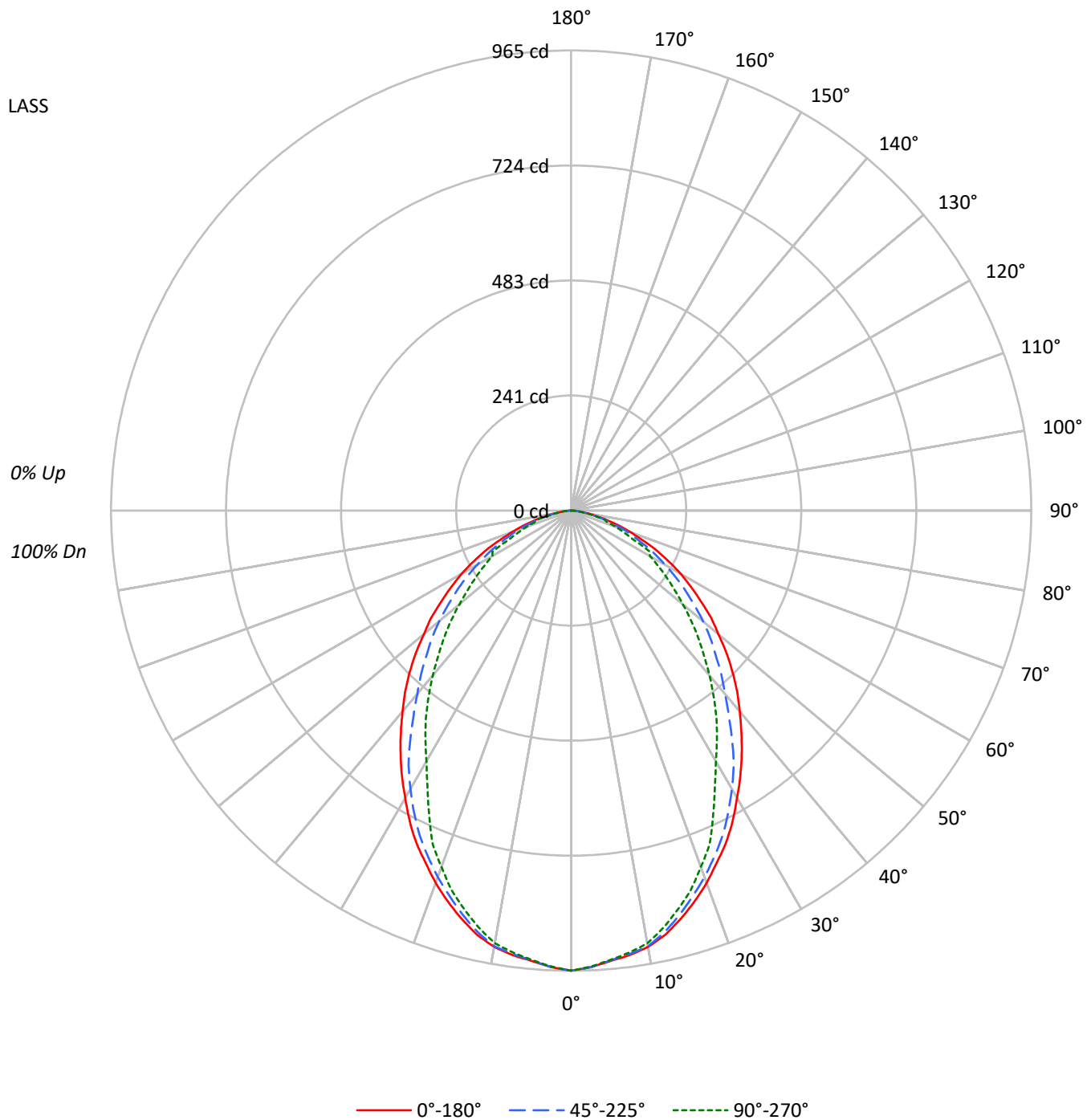
Lumens per Lamp: N/A  
Luminaire Lumens: 1894.0 lumens  
Efficiency: N/A  
Efficacy: 87.7 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	5193	5193	5193
5°	5122	5116	5110
10°	5078	5072	5035
15°	4941	4891	4822
20°	4759	4683	4554
25°	4564	4464	4186
30°	4325	4187	3771
35°	4096	3869	3488
40°	3863	3526	3173
45°	3642	3260	2869
50°	3371	3026	2559
55°	3119	2742	2292
60°	2858	2449	2053
65°	2514	2145	1819
70°	2071	1877	1545
75°	1647	1439	1508
80°	1106	1038	967
85°	692	827	963

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3642 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.8	4.7
10°-20°	246.5	13.0
20°-30°	341.2	18.0
30°-40°	363.8	19.2
40°-50°	331.9	17.5
50°-60°	260.0	13.7
60°-70°	169.5	8.9
70°-80°	75.1	4.0
80°-90°	16.1	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°	677.5	35.8
0°-40°	1041.3	55.0
0°-60°	1633.3	86.2
0°-90°	1894.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1894.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	948	947	947	946	946	90
15°	887	887	878	869	866	249
25°	768	764	752	725	705	353
35°	624	619	589	544	531	390
45°	478	468	428	393	377	369
55°	332	322	292	258	244	298
65°	197	186	168	172	143	195
75°	79	74	69	66	72	85
85°	11	12	13	14	16	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	964.8	964.8	964.8	964.8	964.8
2.5°	958.1	958.1	958.1	957.0	957.0
5°	948.0	946.9	946.9	945.8	945.8
7.5°	940.2	939.1	938.0	936.9	934.7
10°	929.1	929.1	928.0	922.4	921.3
12.5°	911.2	910.1	905.7	897.9	895.6
15°	886.7	886.7	877.8	868.9	865.5
17.5°	859.9	858.8	847.7	838.7	834.3
20°	830.9	828.7	817.6	803.1	795.2
22.5°	798.6	798.6	785.2	766.2	758.4
25°	768.5	764.0	751.7	725.0	704.9
27.5°	733.9	727.2	713.8	675.9	652.5
30°	696.0	692.6	673.7	624.6	606.8
32.5°	660.3	654.7	634.6	583.3	568.8
35°	623.5	619.0	588.9	544.3	530.9
37.5°	586.7	581.1	543.2	507.5	490.8
40°	549.9	543.2	501.9	469.6	451.7
42.5°	515.3	506.4	466.2	431.6	411.6
45°	478.5	468.4	428.3	392.6	377.0
47.5°	441.7	432.8	395.9	359.1	341.3
50°	402.6	394.8	361.4	324.6	305.6
52.5°	370.3	358.0	325.7	288.9	273.3
55°	332.4	322.3	292.2	257.6	244.3
57.5°	297.8	287.8	259.9	227.5	216.4
60°	265.5	251.0	227.5	199.6	190.7
62.5°	229.8	218.6	198.5	175.1	186.3
65°	197.4	186.3	168.4	171.8	142.8
67.5°	161.7	156.1	140.5	124.9	120.5
70°	131.6	124.9	119.3	102.6	98.2
72.5°	104.8	98.2	90.3	81.4	78.1
75°	79.2	73.6	69.2	65.8	72.5
77.5°	54.7	52.4	49.1	45.7	44.6
80°	35.7	34.6	33.5	32.3	31.2
82.5°	21.2	21.2	21.2	21.2	21.2
85°	11.2	12.3	13.4	14.5	15.6
87.5°	6.7	6.7	7.8	8.9	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)