

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: P560109

Luminaire Tested: FSR-12-2-LD4-1STD-40-UNV-93-96-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560109  
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-LD4-1STD-40-UNV-93-96-EDD  
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

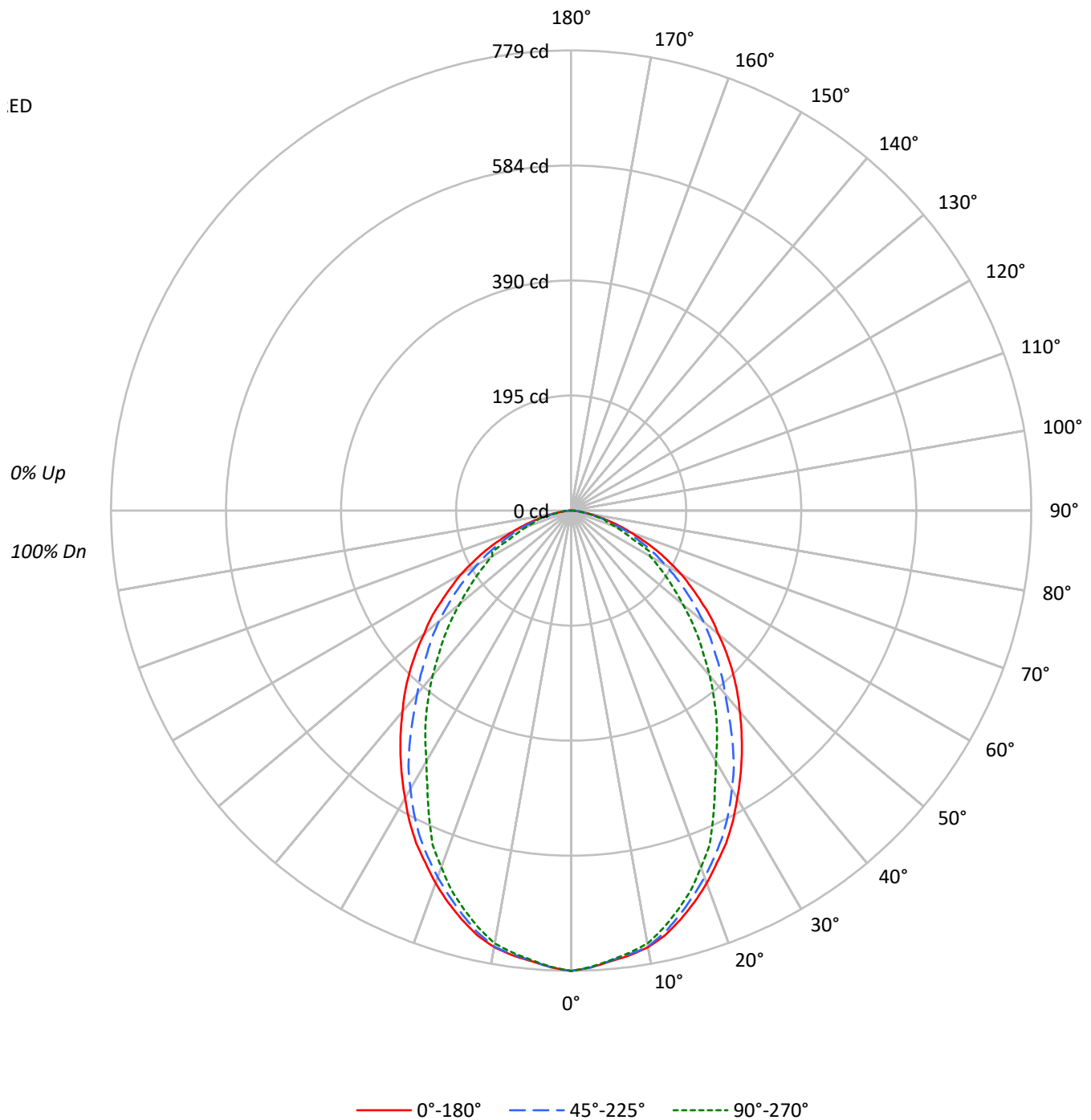
Lumens per Lamp: N/A  
Luminaire Lumens: 1530.0 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	4195	4195	4195
5°	4137	4132	4128
10°	4101	4097	4067
15°	3991	3951	3896
20°	3844	3782	3679
25°	3687	3606	3381
30°	3494	3382	3046
35°	3309	3125	2818
40°	3121	2848	2564
45°	2942	2633	2318
50°	2724	2444	2067
55°	2519	2215	1851
60°	2308	1978	1659
65°	2031	1733	1468
70°	1673	1517	1248
75°	1331	1162	1219
80°	893	837	781
85°	556	667	778

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2942 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.5	4.7
10°-20°	199.1	13.0
20°-30°	275.6	18.0
30°-40°	293.9	19.2
40°-50°	268.1	17.5
50°-60°	210.1	13.7
60°-70°	136.9	8.9
70°-80°	60.7	4.0
80°-90°	13.0	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°	547.3	35.8
0°-40°	841.2	55.0
0°-60°	1319.4	86.2
0°-90°	1530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1530.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	779	779	779	779	779	
5°	766	765	765	764	764	73
15°	716	716	709	702	699	201
25°	621	617	607	586	569	285
35°	504	500	476	440	429	315
45°	386	378	346	317	304	298
55°	268	260	236	208	197	241
65°	160	150	136	139	115	157
75°	64	60	56	53	59	69
85°	9	10	11	12	13	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	779.4	779.4	779.4	779.4	779.4
2.5°	774.0	774.0	774.0	773.1	773.1
5°	765.8	764.9	764.9	764.0	764.0
7.5°	759.5	758.6	757.7	756.8	755.0
10°	750.5	750.5	749.6	745.1	744.2
12.5°	736.1	735.2	731.6	725.3	723.5
15°	716.3	716.3	709.1	701.9	699.2
17.5°	694.7	693.8	684.8	677.5	673.9
20°	671.2	669.4	660.4	648.7	642.4
22.5°	645.1	645.1	634.3	619.0	612.7
25°	620.8	617.2	607.3	585.6	569.4
27.5°	592.9	587.4	576.6	546.0	527.1
30°	562.2	559.5	544.2	504.6	490.1
32.5°	533.4	528.9	512.7	471.2	459.5
35°	503.7	500.1	475.7	439.7	428.9
37.5°	473.9	469.4	438.8	410.0	396.4
40°	444.2	438.8	405.4	379.3	364.9
42.5°	416.3	409.1	376.6	348.7	332.5
45°	386.5	378.4	346.0	317.2	304.5
47.5°	356.8	349.6	319.9	290.1	275.7
50°	325.3	319.0	291.9	262.2	246.9
52.5°	299.1	289.2	263.1	233.4	220.7
55°	268.5	260.4	236.1	208.1	197.3
57.5°	240.6	232.5	209.9	183.8	174.8
60°	214.4	202.7	183.8	161.3	154.1
62.5°	185.6	176.6	160.4	141.5	150.5
65°	159.5	150.5	136.1	138.8	115.3
67.5°	130.6	126.1	113.5	100.9	97.3
70°	106.3	100.9	96.4	82.9	79.3
72.5°	84.7	79.3	73.0	65.8	63.1
75°	64.0	59.5	55.9	53.2	58.6
77.5°	44.1	42.3	39.6	36.9	36.0
80°	28.8	27.9	27.0	26.1	25.2
82.5°	17.1	17.1	17.1	17.1	17.1
85°	9.0	9.9	10.8	11.7	12.6
87.5°	5.4	5.4	6.3	7.2	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)