

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: P559955

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-82-85-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559955  
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-LD4-1LO-50-UNV-82-85-EDD  
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

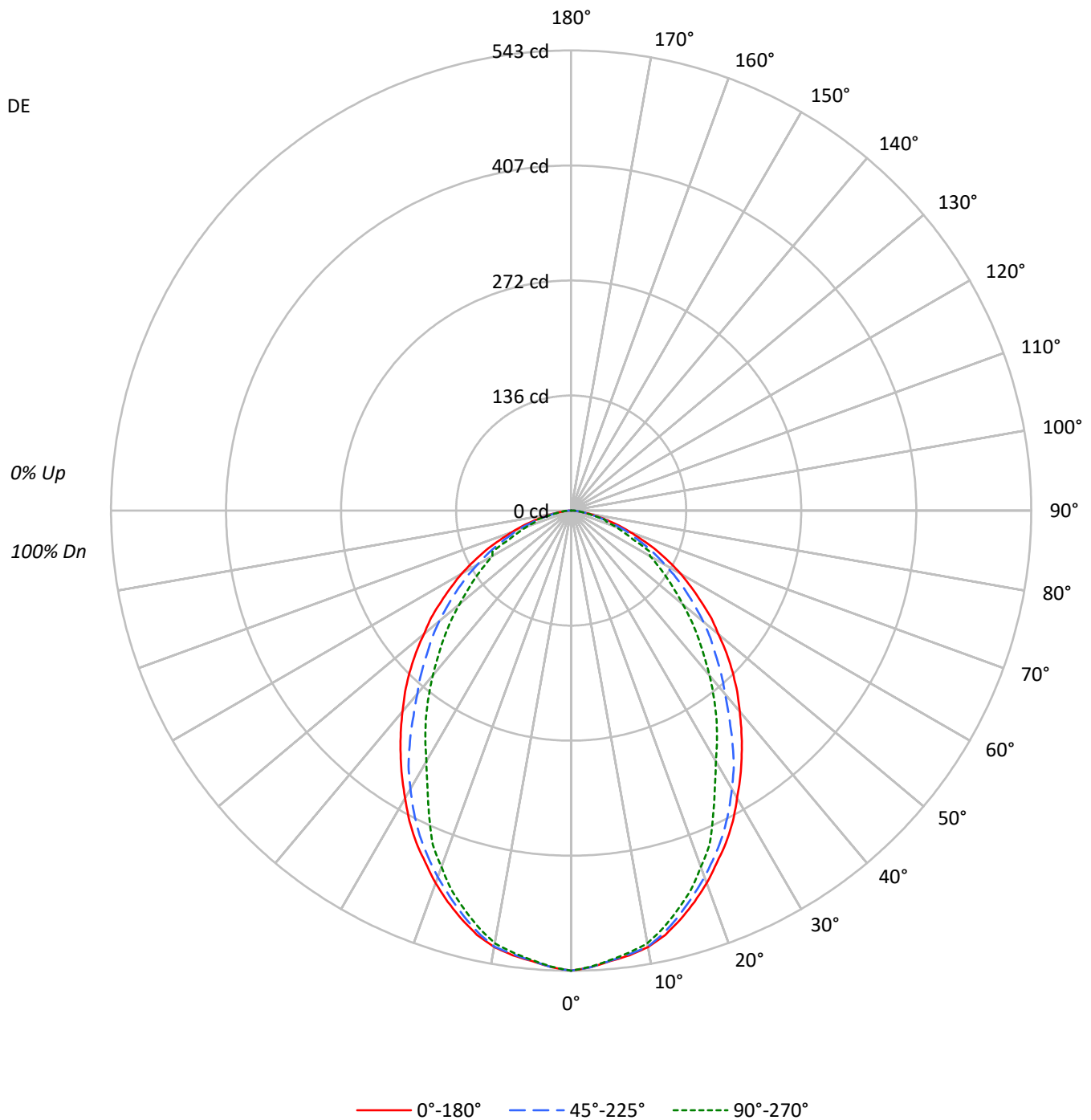
Lumens per Lamp: N/A  
Luminaire Lumens: 1066.0 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	2922	2922	2922
5°	2883	2880	2876
10°	2858	2854	2834
15°	2781	2752	2714
20°	2679	2635	2564
25°	2568	2513	2356
30°	2434	2357	2122
35°	2305	2178	1963
40°	2174	1985	1786
45°	2050	1835	1615
50°	1897	1703	1440
55°	1756	1544	1290
60°	1608	1379	1155
65°	1415	1207	1024
70°	1166	1057	869
75°	927	809	848
80°	623	583	545
85°	389	463	543

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2050 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.5	4.7
10°-20°	138.7	13.0
20°-30°	192.0	18.0
30°-40°	204.8	19.2
40°-50°	186.8	17.5
50°-60°	146.4	13.7
60°-70°	95.4	8.9
70°-80°	42.2	4.0
80°-90°	9.1	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°	381.3	35.8
0°-40°	586.1	55.0
0°-60°	919.3	86.2
0°-90°	1066.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1066.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	543	543	543	543	543	
5°	534	533	533	532	532	51
15°	499	499	494	489	487	140
25°	432	430	423	408	397	199
35°	351	348	332	306	299	219
45°	269	264	241	221	212	207
55°	187	181	164	145	138	168
65°	111	105	95	97	80	109
75°	45	41	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	543.0	543.0	543.0	543.0	543.0
2.5°	539.2	539.2	539.2	538.6	538.6
5°	533.6	533.0	533.0	532.3	532.3
7.5°	529.2	528.6	527.9	527.3	526.1
10°	522.9	522.9	522.3	519.2	518.5
12.5°	512.9	512.2	509.7	505.3	504.1
15°	499.1	499.1	494.0	489.0	487.1
17.5°	484.0	483.4	477.1	472.1	469.6
20°	467.7	466.4	460.1	452.0	447.6
22.5°	449.5	449.5	441.9	431.3	426.9
25°	432.5	430.0	423.1	408.0	396.7
27.5°	413.1	409.3	401.8	380.4	367.2
30°	391.7	389.8	379.2	351.5	341.5
32.5°	371.6	368.5	357.2	328.3	320.2
35°	350.9	348.4	331.5	306.3	298.8
37.5°	330.2	327.1	305.7	285.6	276.2
40°	309.5	305.7	282.5	264.3	254.2
42.5°	290.0	285.0	262.4	242.9	231.6
45°	269.3	263.7	241.1	221.0	212.2
47.5°	248.6	243.6	222.9	202.1	192.1
50°	226.6	222.2	203.4	182.7	172.0
52.5°	208.4	201.5	183.3	162.6	153.8
55°	187.1	181.4	164.5	145.0	137.5
57.5°	167.6	162.0	146.3	128.1	121.8
60°	149.4	141.2	128.1	112.4	107.3
62.5°	129.3	123.0	111.7	98.6	104.8
65°	111.1	104.8	94.8	96.7	80.4
67.5°	91.0	87.9	79.1	70.3	67.8
70°	74.1	70.3	67.2	57.8	55.2
72.5°	59.0	55.2	50.8	45.8	43.9
75°	44.6	41.4	38.9	37.0	40.8
77.5°	30.8	29.5	27.6	25.7	25.1
80°	20.1	19.5	18.8	18.2	17.6
82.5°	11.9	11.9	11.9	11.9	11.9
85°	6.3	6.9	7.5	8.2	8.8
87.5°	3.8	3.8	4.4	5.0	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)