

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: P560706

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-81-85-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560706  
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-LD4-2STD-50-UNV-81-85-EDD-90  
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

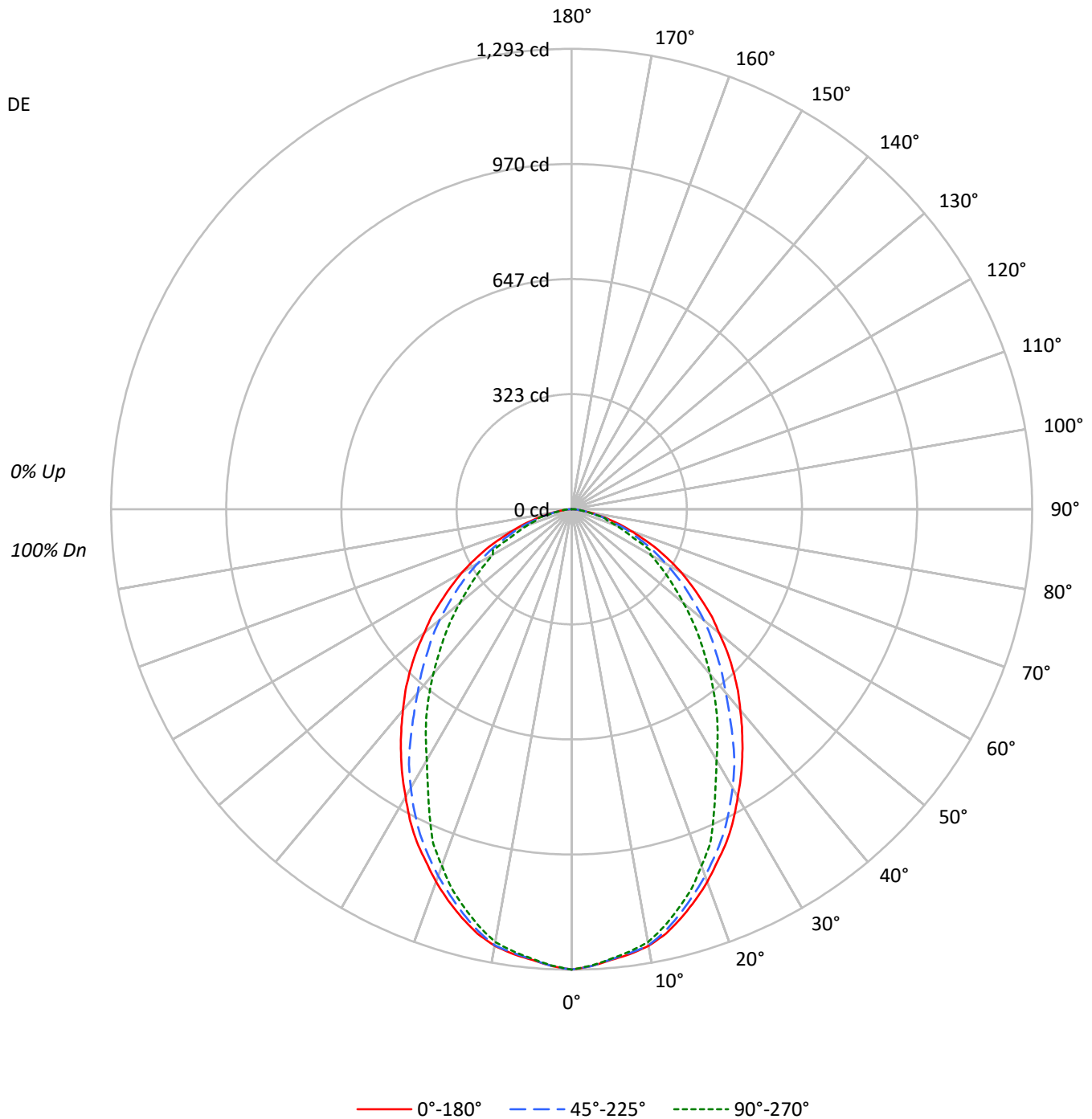
Lumens per Lamp: N/A  
Luminaire Lumens: 2538.0 lumens  
Efficiency: N/A  
Efficacy: 76.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	6958	6958	6958
5°	6863	6855	6847
10°	6804	6796	6747
15°	6620	6554	6462
20°	6377	6274	6103
25°	6115	5982	5609
30°	5796	5610	5053
35°	5489	5185	4674
40°	5176	4725	4253
45°	4880	4368	3845
50°	4517	4054	3429
55°	4179	3674	3071
60°	3829	3282	2751
65°	3368	2874	2436
70°	2776	2516	2069
75°	2206	1928	2019
80°	1481	1389	1296
85°	920	1105	1291

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4880 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.3	4.7
10°-20°	330.3	13.0
20°-30°	457.2	18.0
30°-40°	487.6	19.2
40°-50°	444.8	17.5
50°-60°	348.5	13.7
60°-70°	227.1	8.9
70°-80°	100.6	4.0
80°-90°	21.6	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°	907.9	35.8
0°-40°	1395.4	55.0
0°-60°	2188.7	86.2
0°-90°	2538.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2538.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1293	1293	1293	1293	1293	
5°	1270	1269	1269	1267	1267	121
15°	1188	1188	1176	1164	1160	334
25°	1030	1024	1007	972	945	473
35°	836	830	789	729	711	522
45°	641	628	574	526	505	494
55°	445	432	392	345	327	399
65°	264	250	226	230	191	261
75°	106	99	93	88	97	114
85°	15	16	18	19	21	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1292.8	1292.8	1292.8	1292.8	1292.8
2.5°	1283.9	1283.9	1283.9	1282.4	1282.4
5°	1270.4	1268.9	1268.9	1267.4	1267.4
7.5°	1259.9	1258.4	1257.0	1255.5	1252.5
10°	1245.0	1245.0	1243.5	1236.0	1234.5
12.5°	1221.1	1219.6	1213.6	1203.1	1200.2
15°	1188.2	1188.2	1176.2	1164.3	1159.8
17.5°	1152.3	1150.8	1135.9	1123.9	1118.0
20°	1113.5	1110.5	1095.5	1076.1	1065.6
22.5°	1070.1	1070.1	1052.2	1026.8	1016.3
25°	1029.8	1023.8	1007.4	971.5	944.6
27.5°	983.4	974.5	956.5	905.7	874.3
30°	932.6	928.1	902.7	837.0	813.1
32.5°	884.8	877.3	850.4	781.7	762.2
35°	835.5	829.5	789.1	729.4	711.4
37.5°	786.2	778.7	727.9	680.0	657.6
40°	736.8	727.9	672.6	629.2	605.3
42.5°	690.5	678.5	624.7	578.4	551.5
45°	641.2	627.7	573.9	526.1	505.2
47.5°	591.9	579.9	530.6	481.3	457.3
50°	539.5	529.1	484.2	434.9	409.5
52.5°	496.2	479.8	436.4	387.1	366.2
55°	445.4	431.9	391.6	345.3	327.3
57.5°	399.1	385.6	348.2	304.9	290.0
60°	355.7	336.3	304.9	267.5	255.6
62.5°	307.9	292.9	266.0	234.7	249.6
65°	264.5	249.6	225.7	230.2	191.3
67.5°	216.7	209.2	188.3	167.4	161.4
70°	176.4	167.4	159.9	137.5	131.5
72.5°	140.5	131.5	121.1	109.1	104.6
75°	106.1	98.6	92.7	88.2	97.1
77.5°	73.2	70.2	65.8	61.3	59.8
80°	47.8	46.3	44.8	43.3	41.8
82.5°	28.4	28.4	28.4	28.4	28.4
85°	14.9	16.4	17.9	19.4	20.9
87.5°	9.0	9.0	10.5	12.0	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)