

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: P560589

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-81-96-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560589  
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-35-UNV-81-96-EDD  
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

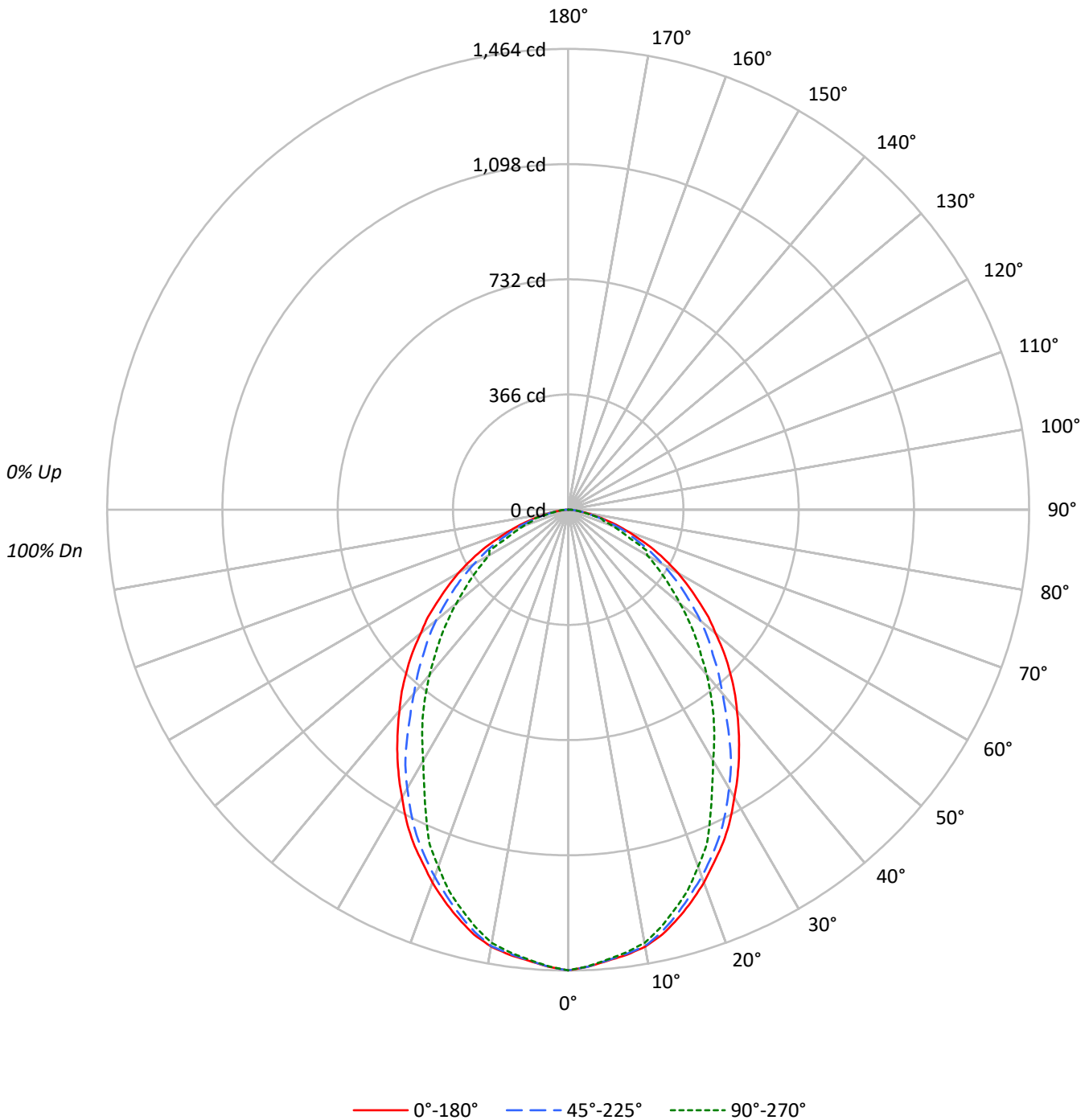
Lumens per Lamp: N/A  
Luminaire Lumens: 2873.0 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	7876	7876	7876
5°	7769	7760	7751
10°	7702	7693	7637
15°	7494	7419	7315
20°	7219	7102	6909
25°	6922	6771	6350
30°	6561	6351	5720
35°	6214	5869	5291
40°	5860	5349	4814
45°	5524	4945	4353
50°	5114	4590	3882
55°	4731	4160	3476
60°	4335	3715	3114
65°	3814	3254	2758
70°	3141	2848	2343
75°	2497	2181	2287
80°	1677	1574	1469
85°	1044	1254	1463

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5524 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.2	4.7
10°-20°	373.9	13.0
20°-30°	517.6	18.0
30°-40°	551.9	19.2
40°-50°	503.5	17.5
50°-60°	394.5	13.7
60°-70°	257.1	8.9
70°-80°	113.9	4.0
80°-90°	24.4	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°	1027.7	35.8
0°-40°	1579.6	55.0
0°-60°	2477.6	86.2
0°-90°	2873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2873.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1464	1464	1464	1464	1464	
5°	1438	1436	1436	1435	1435	137
15°	1345	1345	1332	1318	1313	378
25°	1166	1159	1140	1100	1069	535
35°	946	939	893	826	805	591
45°	726	711	650	596	572	559
55°	504	489	443	391	370	452
65°	300	282	256	260	217	295
75°	120	112	105	100	110	129
85°	17	19	20	22	24	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1463.5	1463.5	1463.5	1463.5	1463.5
2.5°	1453.3	1453.3	1453.3	1451.6	1451.6
5°	1438.1	1436.4	1436.4	1434.7	1434.7
7.5°	1426.2	1424.6	1422.9	1421.2	1417.8
10°	1409.3	1409.3	1407.6	1399.2	1397.5
12.5°	1382.3	1380.6	1373.8	1362.0	1358.6
15°	1345.0	1345.0	1331.5	1318.0	1312.9
17.5°	1304.4	1302.7	1285.8	1272.3	1265.5
20°	1260.4	1257.1	1240.1	1218.1	1206.3
22.5°	1211.4	1211.4	1191.1	1162.3	1150.5
25°	1165.7	1158.9	1140.3	1099.7	1069.3
27.5°	1113.3	1103.1	1082.8	1025.3	989.7
30°	1055.7	1050.7	1021.9	947.4	920.4
32.5°	1001.6	993.1	962.7	884.8	862.9
35°	945.8	939.0	893.3	825.6	805.3
37.5°	889.9	881.5	823.9	769.8	744.4
40°	834.1	823.9	761.3	712.3	685.2
42.5°	781.6	768.1	707.2	654.8	624.3
45°	725.8	710.6	649.7	595.5	571.9
47.5°	670.0	656.4	600.6	544.8	517.7
50°	610.8	598.9	548.2	492.3	463.6
52.5°	561.7	543.1	494.0	438.2	414.5
55°	504.2	489.0	443.3	390.8	370.5
57.5°	451.7	436.5	394.2	345.1	328.2
60°	402.7	380.7	345.1	302.8	289.3
62.5°	348.5	331.6	301.2	265.6	282.5
65°	299.5	282.5	255.5	260.5	216.6
67.5°	245.3	236.9	213.2	189.5	182.7
70°	199.6	189.5	181.0	155.7	148.9
72.5°	159.0	148.9	137.0	123.5	118.4
75°	120.1	111.7	104.9	99.8	110.0
77.5°	82.9	79.5	74.4	69.4	67.7
80°	54.1	52.4	50.8	49.1	47.4
82.5°	32.1	32.1	32.1	32.1	32.1
85°	16.9	18.6	20.3	22.0	23.7
87.5°	10.2	10.2	11.8	13.5	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)