

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: P559097

Luminaire Tested: FSR-12-1-LD4-2HI-40-UNV-80-88-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559097  
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-12-1-LD4-2HI-40-UNV-80-88-EDD  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON  
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

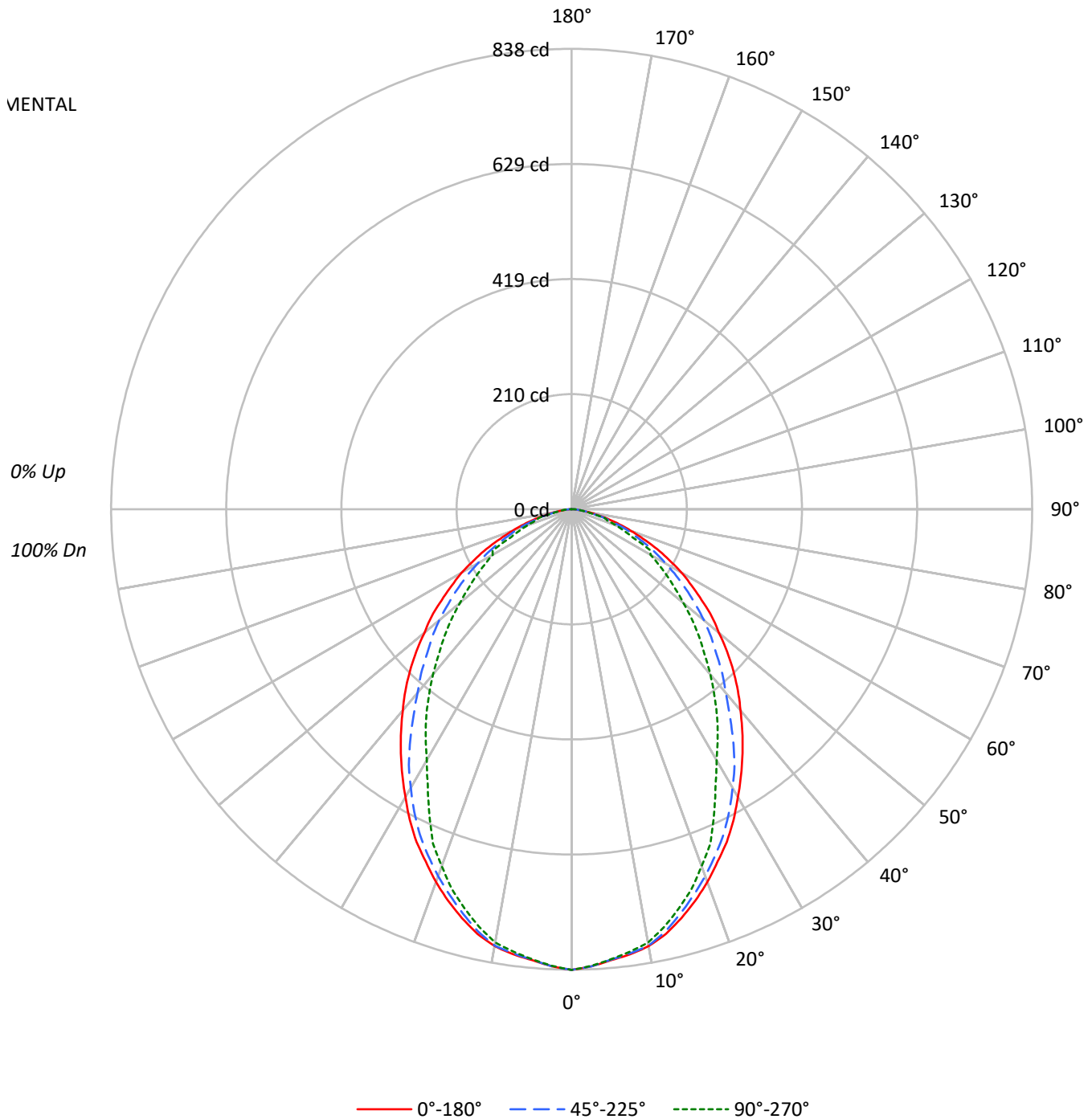
Lumens per Lamp: N/A  
Luminaire Lumens: 1646.0 lumens  
Efficiency: N/A  
Efficacy: 76.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	9026	9026	9026
5°	8902	8891	8882
10°	8825	8815	8751
15°	8587	8500	8382
20°	8271	8139	7916
25°	7932	7759	7276
30°	7517	7277	6554
35°	7119	6725	6063
40°	6715	6129	5517
45°	6330	5666	4987
50°	5859	5260	4448
55°	5422	4767	3984
60°	4966	4256	3569
65°	4371	3729	3161
70°	3600	3264	2685
75°	2861	2499	2620
80°	1922	1804	1680
85°	1198	1433	1680

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6330 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.0	4.7
10°-20°	214.2	13.0
20°-30°	296.5	18.0
30°-40°	316.2	19.2
40°-50°	288.5	17.5
50°-60°	226.0	13.7
60°-70°	147.3	8.9
70°-80°	65.3	4.0
80°-90°	14.0	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°	588.8	35.8
0°-40°	905.0	55.0
0°-60°	1419.4	86.2
0°-90°	1646.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1646.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	838	838	838	838	838	
5°	824	823	823	822	822	78
15°	771	771	763	755	752	217
25°	668	664	653	630	613	307
35°	542	538	512	473	461	339
45°	416	407	372	341	328	320
55°	289	280	254	224	212	259
65°	172	162	146	149	124	169
75°	69	64	60	57	63	74
85°	10	11	12	13	14	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	838.5	838.5	838.5	838.5	838.5
2.5°	832.6	832.6	832.6	831.7	831.7
5°	823.9	822.9	822.9	822.0	822.0
7.5°	817.1	816.2	815.2	814.2	812.3
10°	807.4	807.4	806.5	801.6	800.6
12.5°	791.9	791.0	787.1	780.3	778.4
15°	770.6	770.6	762.8	755.1	752.2
17.5°	747.3	746.4	736.7	728.9	725.0
20°	722.1	720.2	710.5	697.9	691.1
22.5°	694.0	694.0	682.4	665.9	659.1
25°	667.9	664.0	653.3	630.0	612.6
27.5°	637.8	632.0	620.4	587.4	567.0
30°	604.8	601.9	585.5	542.8	527.3
32.5°	573.8	569.0	551.5	506.9	494.3
35°	541.8	538.0	511.8	473.0	461.4
37.5°	509.9	505.0	472.1	441.0	426.5
40°	477.9	472.1	436.2	408.1	392.6
42.5°	447.8	440.1	405.2	375.1	357.7
45°	415.8	407.1	372.2	341.2	327.6
47.5°	383.8	376.1	344.1	312.1	296.6
50°	349.9	343.1	314.1	282.1	265.6
52.5°	321.8	311.1	283.0	251.1	237.5
55°	288.9	280.1	254.0	223.9	212.3
57.5°	258.8	250.1	225.8	197.7	188.0
60°	230.7	218.1	197.7	173.5	165.8
62.5°	199.7	190.0	172.5	152.2	161.9
65°	171.6	161.9	146.4	149.3	124.1
67.5°	140.5	135.7	122.1	108.6	104.7
70°	114.4	108.6	103.7	89.2	85.3
72.5°	91.1	85.3	78.5	70.8	67.9
75°	68.8	64.0	60.1	57.2	63.0
77.5°	47.5	45.6	42.6	39.7	38.8
80°	31.0	30.0	29.1	28.1	27.1
82.5°	18.4	18.4	18.4	18.4	18.4
85°	9.7	10.7	11.6	12.6	13.6
87.5°	5.8	5.8	6.8	7.8	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)