

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: P560057

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

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560057  
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-80-88-EDD  
Description: 1X2 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**

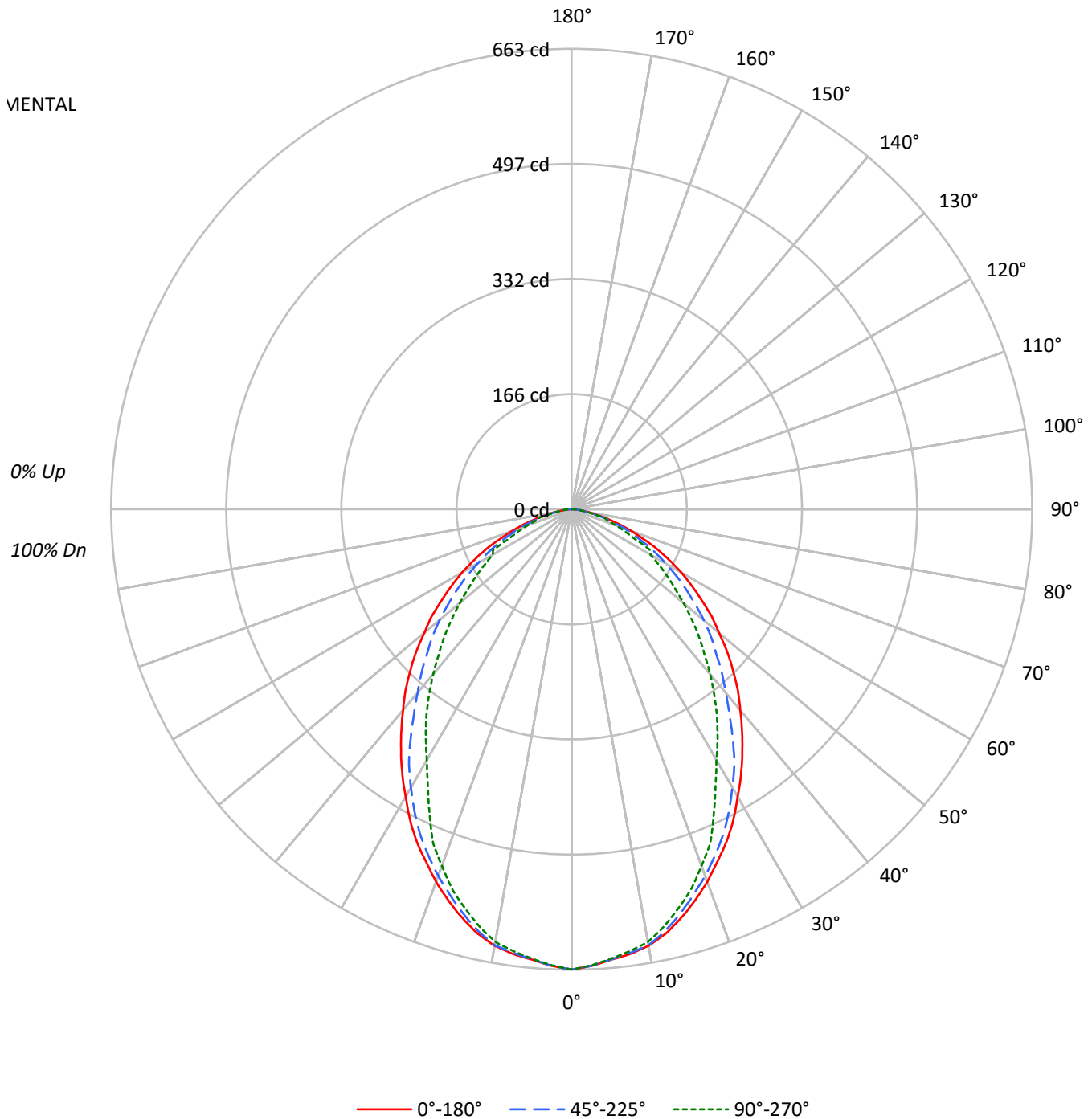
Lumens per Lamp: N/A  
Luminaire Lumens: 1301.0 lumens  
Efficiency: N/A  
Efficacy: 78.4 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	3567	3567	3567
5°	3518	3514	3510
10°	3488	3483	3458
15°	3394	3360	3312
20°	3269	3216	3129
25°	3135	3067	2875
30°	2971	2875	2590
35°	2814	2658	2396
40°	2654	2422	2180
45°	2502	2239	1971
50°	2316	2078	1757
55°	2142	1883	1574
60°	1962	1682	1410
65°	1727	1473	1249
70°	1423	1290	1061
75°	1131	988	1036
80°	759	713	666
85°	475	568	661

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2502 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.7	4.7
10°-20°	169.3	13.0
20°-30°	234.4	18.0
30°-40°	249.9	19.2
40°-50°	228.0	17.5
50°-60°	178.6	13.7
60°-70°	116.4	8.9
70°-80°	51.6	4.0
80°-90°	11.1	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°	465.4	35.8
0°-40°	715.3	55.0
0°-60°	1121.9	86.2
0°-90°	1301.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1301.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	663	663	663	663	663	
5°	651	650	650	650	650	62
15°	609	609	603	597	594	171
25°	528	525	516	498	484	242
35°	428	425	404	374	365	268
45°	329	322	294	270	259	253
55°	228	221	201	177	168	205
65°	136	128	116	118	98	134
75°	54	51	48	45	50	58
85°	8	8	9	10	11	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	662.7	662.7	662.7	662.7	662.7
2.5°	658.1	658.1	658.1	657.3	657.3
5°	651.2	650.5	650.5	649.7	649.7
7.5°	645.9	645.1	644.3	643.6	642.0
10°	638.2	638.2	637.4	633.6	632.8
12.5°	625.9	625.2	622.1	616.7	615.2
15°	609.1	609.1	603.0	596.8	594.5
17.5°	590.7	589.9	582.3	576.1	573.1
20°	570.8	569.2	561.6	551.6	546.3
22.5°	548.6	548.6	539.4	526.3	521.0
25°	527.9	524.8	516.4	498.0	484.2
27.5°	504.1	499.5	490.3	464.3	448.2
30°	478.1	475.8	462.7	429.0	416.8
32.5°	453.6	449.7	435.9	400.7	390.7
35°	428.3	425.2	404.5	373.9	364.7
37.5°	403.0	399.2	373.1	348.6	337.1
40°	377.7	373.1	344.8	322.5	310.3
42.5°	354.0	347.8	320.2	296.5	282.7
45°	328.7	321.8	294.2	269.7	259.0
47.5°	303.4	297.3	272.0	246.7	234.4
50°	276.6	271.2	248.2	222.9	209.9
52.5°	254.4	245.9	223.7	198.4	187.7
55°	228.3	221.4	200.7	177.0	167.8
57.5°	204.6	197.7	178.5	156.3	148.6
60°	182.3	172.4	156.3	137.1	131.0
62.5°	157.8	150.2	136.4	120.3	127.9
65°	135.6	127.9	115.7	118.0	98.1
67.5°	111.1	107.3	96.5	85.8	82.7
70°	90.4	85.8	82.0	70.5	67.4
72.5°	72.0	67.4	62.1	55.9	53.6
75°	54.4	50.6	47.5	45.2	49.8
77.5°	37.5	36.0	33.7	31.4	30.6
80°	24.5	23.8	23.0	22.2	21.5
82.5°	14.6	14.6	14.6	14.6	14.6
85°	7.7	8.4	9.2	10.0	10.7
87.5°	4.6	4.6	5.4	6.1	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)