

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: P560369

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-80-84-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560369  
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-LD4-2LO-35-UNV-80-84-EDD  
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM  
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

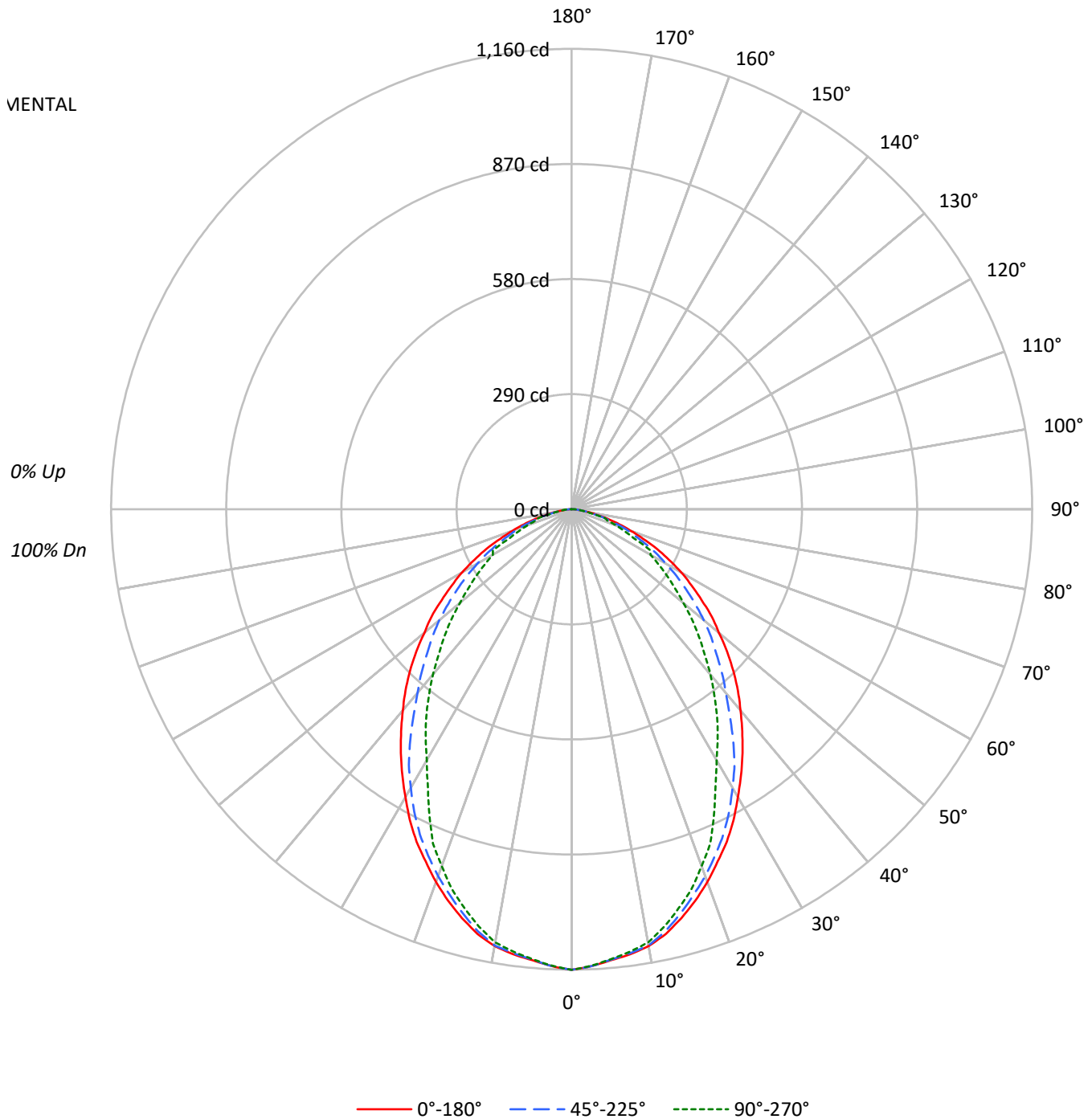
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2278.0 lumens  
Efficiency: N/A  
Efficacy: 97.3 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): 23.4  
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	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				
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°	6245	6245	6245
5°	6160	6153	6146
10°	6107	6099	6056
15°	5942	5882	5800
20°	5724	5632	5478
25°	5489	5369	5035
30°	5202	5036	4535
35°	4927	4654	4195
40°	4647	4241	3817
45°	4380	3921	3451
50°	4055	3639	3078
55°	3751	3298	2757
60°	3437	2946	2469
65°	3023	2580	2187
70°	2491	2258	1858
75°	1980	1730	1813
80°	1330	1246	1165
85°	827	994	1161

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4380 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.0	4.7
10°-20°	296.4	13.0
20°-30°	410.4	18.0
30°-40°	437.6	19.2
40°-50°	399.2	17.5
50°-60°	312.8	13.7
60°-70°	203.8	8.9
70°-80°	90.3	4.0
80°-90°	19.4	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°	814.9	35.8
0°-40°	1252.5	55.0
0°-60°	1964.5	86.2
0°-90°	2278.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2278.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1160	1160	1160	1160	1160	
5°	1140	1139	1139	1138	1138	108
15°	1066	1066	1056	1045	1041	300
25°	924	919	904	872	848	424
35°	750	744	708	655	638	469
45°	576	563	515	472	453	443
55°	400	388	352	310	294	359
65°	237	224	203	207	172	234
75°	95	88	83	79	87	102
85°	13	15	16	17	19	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1160.4	1160.4	1160.4	1160.4	1160.4
2.5°	1152.3	1152.3	1152.3	1151.0	1151.0
5°	1140.3	1138.9	1138.9	1137.6	1137.6
7.5°	1130.9	1129.5	1128.2	1126.8	1124.2
10°	1117.5	1117.5	1116.1	1109.4	1108.1
12.5°	1096.0	1094.7	1089.3	1079.9	1077.2
15°	1066.5	1066.5	1055.7	1045.0	1041.0
17.5°	1034.3	1032.9	1019.5	1008.8	1003.4
20°	999.4	996.7	983.3	965.9	956.5
22.5°	960.5	960.5	944.4	921.6	912.2
25°	924.3	918.9	904.2	872.0	847.8
27.5°	882.7	874.6	858.5	812.9	784.8
30°	837.1	833.1	810.3	751.2	729.8
32.5°	794.2	787.5	763.3	701.6	684.2
35°	749.9	744.5	708.3	654.6	638.5
37.5°	705.6	698.9	653.3	610.4	590.3
40°	661.4	653.3	603.7	564.8	543.3
42.5°	619.8	609.0	560.7	519.2	495.0
45°	575.5	563.4	515.1	472.2	453.4
47.5°	531.2	520.5	476.2	432.0	410.5
50°	484.3	474.9	434.6	390.4	367.6
52.5°	445.4	430.6	391.7	347.4	328.7
55°	399.8	387.7	351.5	309.9	293.8
57.5°	358.2	346.1	312.6	273.7	260.2
60°	319.3	301.8	273.7	240.1	229.4
62.5°	276.3	262.9	238.8	210.6	224.0
65°	237.4	224.0	202.6	206.6	171.7
67.5°	194.5	187.8	169.0	150.2	144.9
70°	158.3	150.2	143.5	123.4	118.1
72.5°	126.1	118.1	108.7	97.9	93.9
75°	95.2	88.5	83.2	79.1	87.2
77.5°	65.7	63.0	59.0	55.0	53.7
80°	42.9	41.6	40.2	38.9	37.6
82.5°	25.5	25.5	25.5	25.5	25.5
85°	13.4	14.8	16.1	17.4	18.8
87.5°	8.0	8.0	9.4	10.7	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)