

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: P590297

Luminaire Tested: FSR-24-2-LD4-2LO-50-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590297
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-2LO-50-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

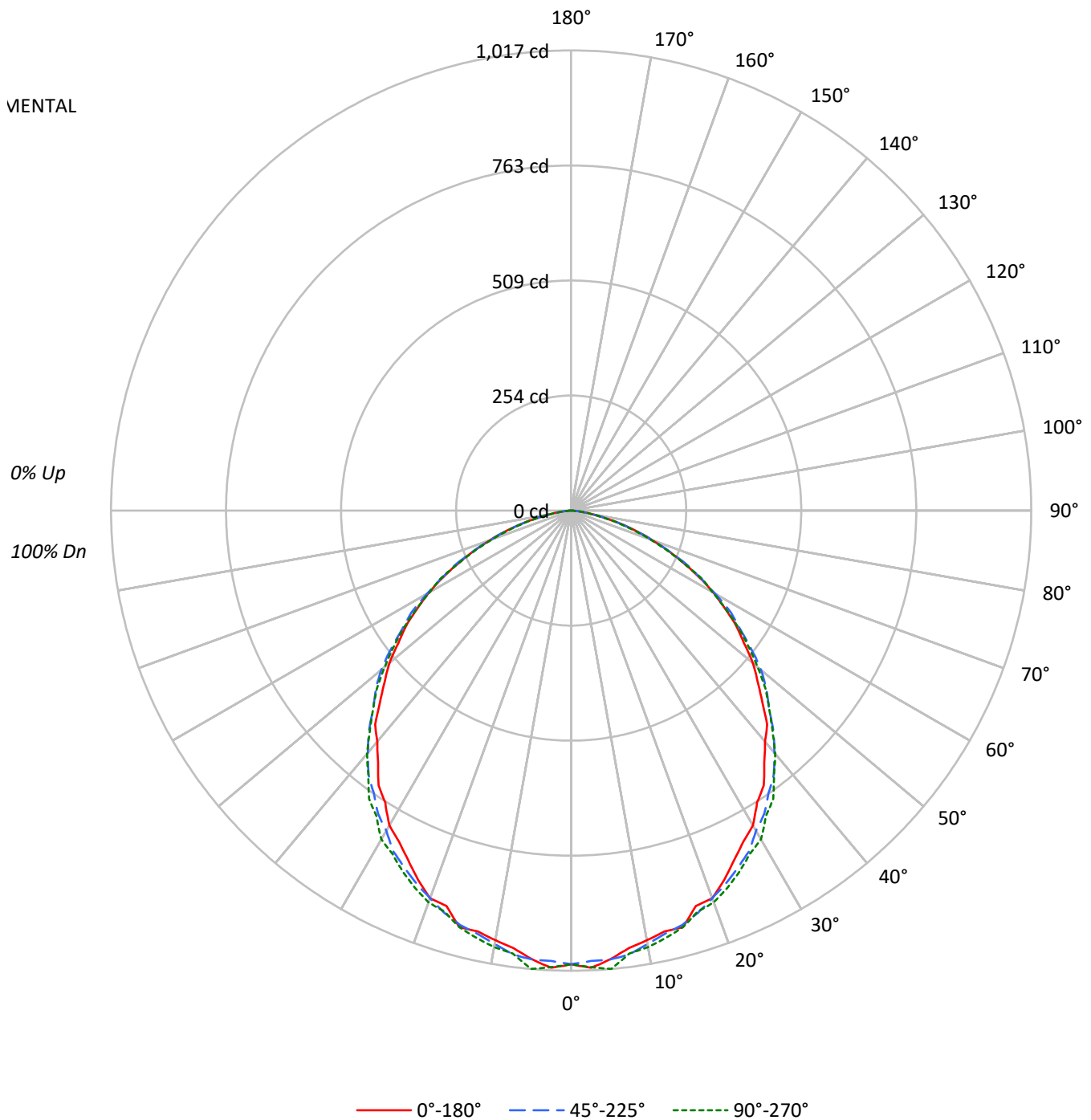
Lumens per Lamp: N/A
Luminaire Lumens: 2527.0 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75					73				
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64					62				
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43					41				
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38					36				
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34					32				
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31					29				
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2698	2698	2698
5°	2689	2690	2747
10°	2635	2658	2676
15°	2656	2641	2656
20°	2611	2611	2639
25°	2530	2586	2614
30°	2496	2540	2607
35°	2437	2501	2557
40°	2342	2455	2466
45°	2271	2352	2355
50°	2197	2296	2252
55°	2093	2134	2118
60°	1957	1977	1941
65°	1745	1790	1733
70°	1497	1503	1460
75°	1186	1183	1137
80°	795	772	742
85°	432	429	398

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2413 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.3	3.7
10°-20°	267.3	10.6
20°-30°	400.5	15.8
30°-40°	474.6	18.8
40°-50°	475.5	18.8
50°-60°	403.6	16.0
60°-70°	272.1	10.8
70°-80°	119.6	4.7
80°-90°	19.4	0.8
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°	762.1	30.2
0°-40°	1236.7	48.9
0°-60°	2115.9	83.7
0°-90°	2527.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2527.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1003	1003	1003	1003	1003	
5°	996	993	996	993	1017	94
15°	953	942	948	953	953	266
25°	852	857	871	882	880	394
35°	742	744	761	779	778	461
45°	597	608	618	634	619	462
55°	446	443	455	452	452	397
65°	274	270	281	270	272	273
75°	114	112	114	106	109	122
85°	14	14	14	14	13	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1002.6	1002.6	1002.6	1002.6	1002.6
2.5°	1011.3	1003.7	996.6	1004.9	1009.9
5°	995.5	993.2	995.9	992.9	1016.9
7.5°	975.1	984.0	989.2	985.9	987.4
10°	964.2	961.1	972.6	980.6	979.5
12.5°	952.5	957.2	957.9	966.5	967.3
15°	953.2	942.2	948.0	952.9	953.3
17.5°	916.2	928.1	932.1	943.4	929.4
20°	911.6	903.0	911.6	923.2	921.4
22.5°	883.8	874.1	892.7	903.0	902.3
25°	852.2	856.9	870.9	882.3	880.4
27.5°	824.5	830.0	849.9	865.6	855.5
30°	803.2	800.4	817.3	831.2	839.0
32.5°	765.0	774.8	794.5	808.3	801.0
35°	741.8	744.0	761.2	778.8	778.3
37.5°	701.3	711.5	735.7	740.6	736.1
40°	666.7	676.9	698.8	704.1	701.9
42.5°	641.2	643.0	661.8	667.9	658.2
45°	596.8	607.9	618.0	634.0	618.9
47.5°	559.0	564.2	585.9	590.2	582.3
50°	524.7	526.5	548.4	543.1	537.9
52.5°	481.6	489.2	501.5	500.5	494.4
55°	446.1	443.1	454.8	451.7	451.5
57.5°	403.5	408.7	418.3	413.4	405.5
60°	363.6	363.8	367.3	361.7	360.7
62.5°	319.2	320.8	321.6	314.7	325.8
65°	274.1	270.4	281.1	270.3	272.1
67.5°	232.5	234.3	233.3	226.6	229.1
70°	190.3	192.6	191.0	183.3	185.6
72.5°	151.7	148.9	150.7	141.1	145.5
75°	114.1	111.7	113.8	105.8	109.4
77.5°	77.7	79.5	78.2	73.9	76.4
80°	51.3	49.8	49.8	47.4	47.9
82.5°	29.9	28.5	28.1	27.3	28.5
85°	14.0	13.6	13.9	13.5	12.9
87.5°	5.0	5.2	5.2	4.9	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)