

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: P590293

Luminaire Tested: FSR-24-2-LD4-2LO-50-UNV-80-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590293
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-80-84-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2993.0 lumens
Efficiency: N/A
Efficacy: 127.9 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

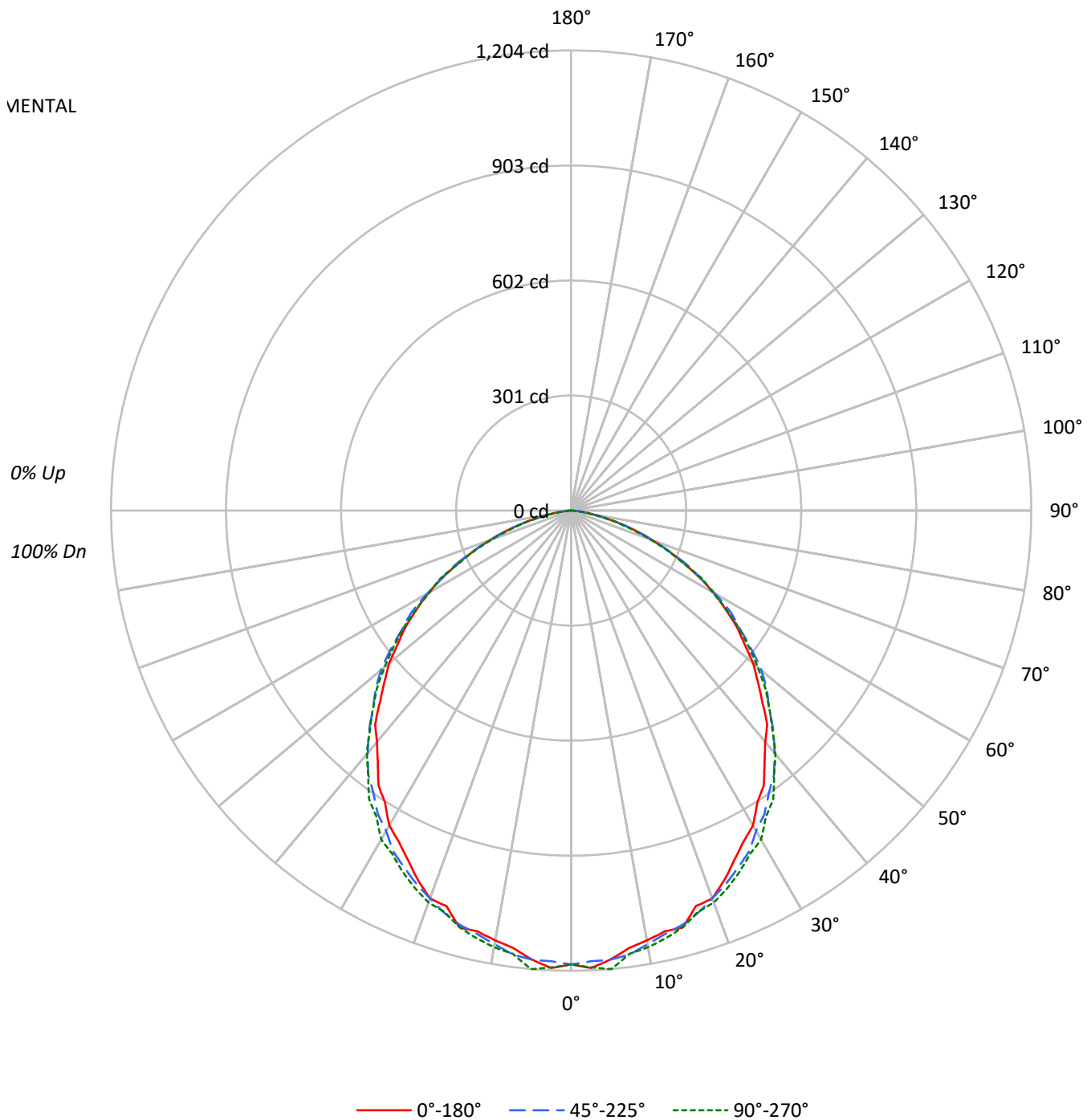
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3196	3196	3196
5°	3185	3186	3253
10°	3121	3148	3170
15°	3145	3128	3146
20°	3092	3092	3125
25°	2997	3063	3096
30°	2956	3008	3088
35°	2886	2962	3028
40°	2774	2908	2921
45°	2690	2786	2790
50°	2601	2719	2667
55°	2479	2527	2509
60°	2318	2341	2299
65°	2067	2120	2052
70°	1773	1780	1730
75°	1405	1402	1347
80°	941	914	879
85°	513	506	472

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2858 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.7	3.7
10°-20°	316.6	10.6
20°-30°	474.3	15.8
30°-40°	562.2	18.8
40°-50°	563.2	18.8
50°-60°	478.1	16.0
60°-70°	322.3	10.8
70°-80°	141.6	4.7
80°-90°	23.0	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°	902.6	30.2
0°-40°	1464.8	48.9
0°-60°	2506.1	83.7
0°-90°	2993.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2993.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1188	1188	1188	1188	1188	
5°	1179	1176	1180	1176	1204	111
15°	1129	1116	1123	1129	1129	315
25°	1009	1015	1032	1045	1043	467
35°	879	881	902	922	922	546
45°	707	720	732	751	733	547
55°	528	525	539	535	535	470
65°	325	320	333	320	322	323
75°	135	132	135	125	130	145
85°	17	16	16	16	15	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1187.5	1187.5	1187.5	1187.5	1187.5
2.5°	1197.8	1188.8	1180.3	1190.2	1196.1
5°	1179.1	1176.4	1179.6	1176.0	1204.4
7.5°	1154.9	1165.5	1171.6	1167.8	1169.5
10°	1142.0	1138.3	1152.0	1161.5	1160.1
12.5°	1128.2	1133.7	1134.5	1144.8	1145.7
15°	1129.0	1115.9	1122.8	1128.7	1129.1
17.5°	1085.1	1099.2	1104.0	1117.3	1100.8
20°	1079.8	1069.5	1079.8	1093.4	1091.3
22.5°	1046.8	1035.3	1057.4	1069.5	1068.7
25°	1009.4	1014.9	1031.5	1044.9	1042.8
27.5°	976.6	983.0	1006.6	1025.2	1013.2
30°	951.3	948.0	968.0	984.5	993.7
32.5°	906.0	917.7	941.0	957.4	948.7
35°	878.6	881.2	901.6	922.4	921.8
37.5°	830.6	842.7	871.4	877.2	871.8
40°	789.7	801.8	827.7	834.0	831.4
42.5°	759.4	761.6	783.8	791.0	779.5
45°	706.9	720.0	732.0	750.9	733.1
47.5°	662.1	668.2	694.0	699.0	689.7
50°	621.4	623.6	649.5	643.2	637.1
52.5°	570.4	579.4	594.0	592.8	585.6
55°	528.4	524.9	538.7	535.0	534.8
57.5°	477.9	484.1	495.4	489.6	480.2
60°	430.7	430.9	435.0	428.4	427.2
62.5°	378.1	380.0	380.9	372.7	385.9
65°	324.6	320.3	332.9	320.2	322.3
67.5°	275.4	277.5	276.3	268.3	271.4
70°	225.4	228.2	226.2	217.1	219.9
72.5°	179.7	176.3	178.5	167.1	172.3
75°	135.1	132.3	134.8	125.3	129.6
77.5°	92.0	94.1	92.6	87.6	90.5
80°	60.7	59.0	59.0	56.1	56.7
82.5°	35.4	33.7	33.3	32.4	33.7
85°	16.6	16.1	16.4	15.9	15.3
87.5°	6.0	6.1	6.1	5.8	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)