

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: P590234

Luminaire Tested: FSR-24-2-LD4-2LO-35-UNV-80-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590234
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-35-UNV-80-94-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2921.0 lumens
Efficiency: N/A
Efficacy: 124.8 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

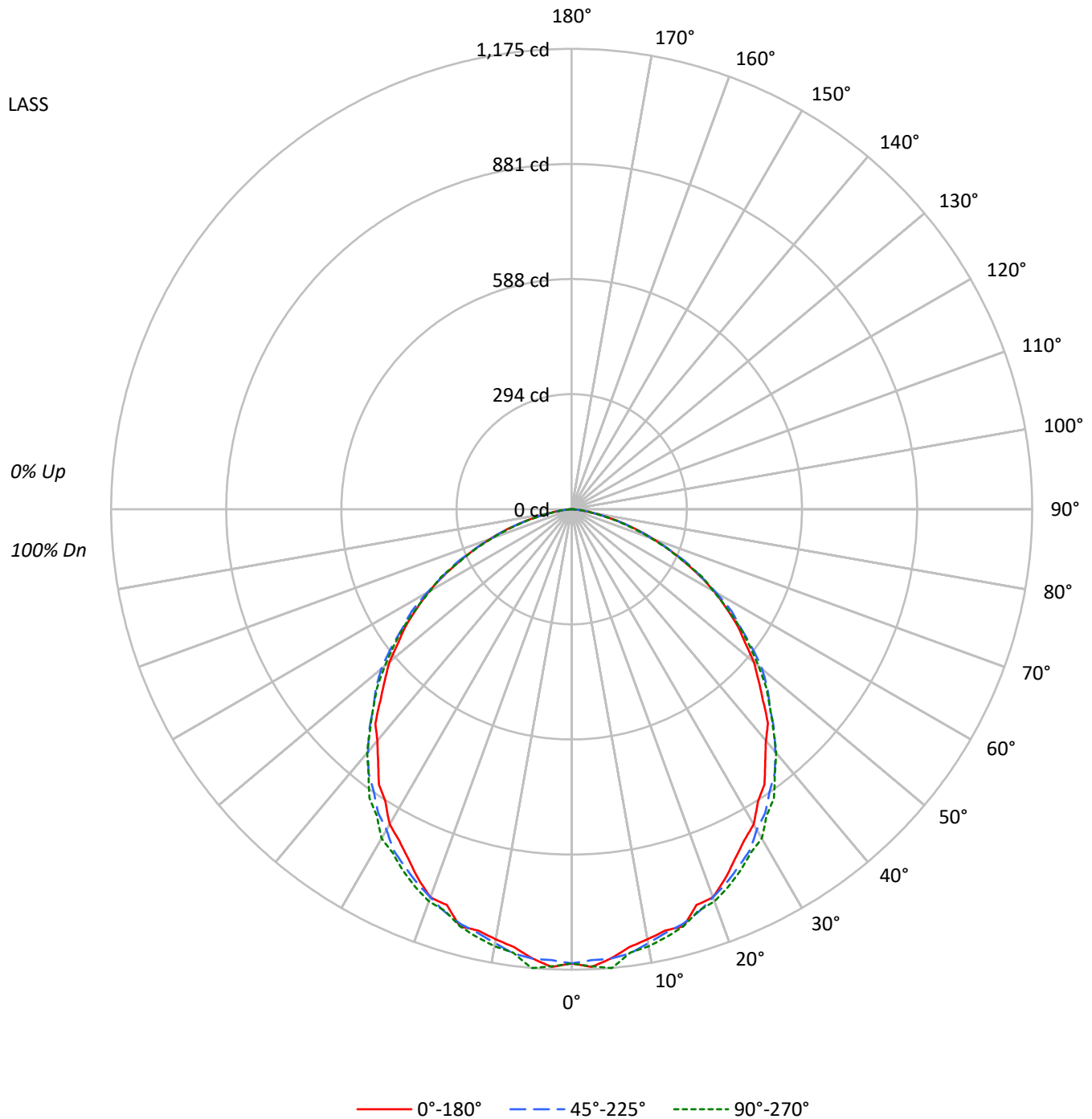
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3119	3119	3119
5°	3108	3110	3175
10°	3045	3072	3094
15°	3070	3053	3070
20°	3018	3018	3050
25°	2925	2989	3022
30°	2885	2935	3013
35°	2817	2891	2955
40°	2707	2838	2850
45°	2625	2719	2723
50°	2539	2654	2603
55°	2419	2466	2449
60°	2262	2285	2244
65°	2017	2069	2003
70°	1731	1736	1688
75°	1370	1367	1314
80°	919	893	859
85°	500	494	463

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2789 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.0	3.7
10°-20°	309.0	10.6
20°-30°	462.9	15.8
30°-40°	548.6	18.8
40°-50°	549.7	18.8
50°-60°	466.6	16.0
60°-70°	314.6	10.8
70°-80°	138.2	4.7
80°-90°	22.5	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°	880.9	30.2
0°-40°	1429.5	48.9
0°-60°	2445.8	83.7
0°-90°	2921.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2921.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1159	1159	1159	1159	1159	
5°	1151	1148	1151	1148	1175	108
15°	1102	1089	1096	1102	1102	307
25°	985	990	1007	1020	1018	455
35°	857	860	880	900	900	532
45°	690	703	714	733	715	534
55°	516	512	526	522	522	459
65°	317	313	325	312	314	315
75°	132	129	132	122	126	141
85°	16	16	16	16	15	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1159.0	1159.0	1159.0	1159.0	1159.0
2.5°	1169.0	1160.2	1151.9	1161.5	1167.4
5°	1150.7	1148.1	1151.2	1147.8	1175.4
7.5°	1127.1	1137.4	1143.4	1139.7	1141.3
10°	1114.5	1110.9	1124.3	1133.5	1132.2
12.5°	1101.1	1106.5	1107.2	1117.2	1118.1
15°	1101.8	1089.1	1095.8	1101.5	1102.0
17.5°	1059.0	1072.8	1077.4	1090.4	1074.3
20°	1053.8	1043.8	1053.8	1067.1	1065.0
22.5°	1021.6	1010.4	1031.9	1043.8	1043.0
25°	985.1	990.5	1006.6	1019.8	1017.7
27.5°	953.1	959.4	982.4	1000.5	988.8
30°	928.4	925.2	944.7	960.9	969.8
32.5°	884.2	895.6	918.4	934.4	925.8
35°	857.4	860.0	879.9	900.2	899.6
37.5°	810.6	822.4	850.4	856.1	850.9
40°	770.7	782.5	807.8	813.9	811.4
42.5°	741.2	743.3	765.0	772.0	760.8
45°	689.9	702.7	714.4	732.8	715.4
47.5°	646.2	652.1	677.3	682.2	673.1
50°	606.5	608.6	633.9	627.7	621.8
52.5°	556.7	565.5	579.7	578.5	571.5
55°	515.7	512.2	525.7	522.1	522.0
57.5°	466.4	472.4	483.5	477.8	468.7
60°	420.3	420.5	424.5	418.1	416.9
62.5°	369.0	370.8	371.7	363.8	376.6
65°	316.8	312.6	324.9	312.5	314.5
67.5°	268.8	270.9	269.7	261.9	264.9
70°	220.0	222.7	220.7	211.9	214.6
72.5°	175.4	172.1	174.2	163.1	168.2
75°	131.8	129.1	131.5	122.3	126.4
77.5°	89.8	91.9	90.4	85.4	88.3
80°	59.3	57.6	57.6	54.8	55.4
82.5°	34.6	32.9	32.5	31.6	32.9
85°	16.2	15.7	16.0	15.6	15.0
87.5°	5.8	6.0	6.0	5.7	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)