

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: P590299

Luminaire Tested: FSR-24-2-LD4-2LO-50-UNV-80-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590299
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-80-96-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2967.0 lumens
Efficiency: N/A
Efficacy: 126.8 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

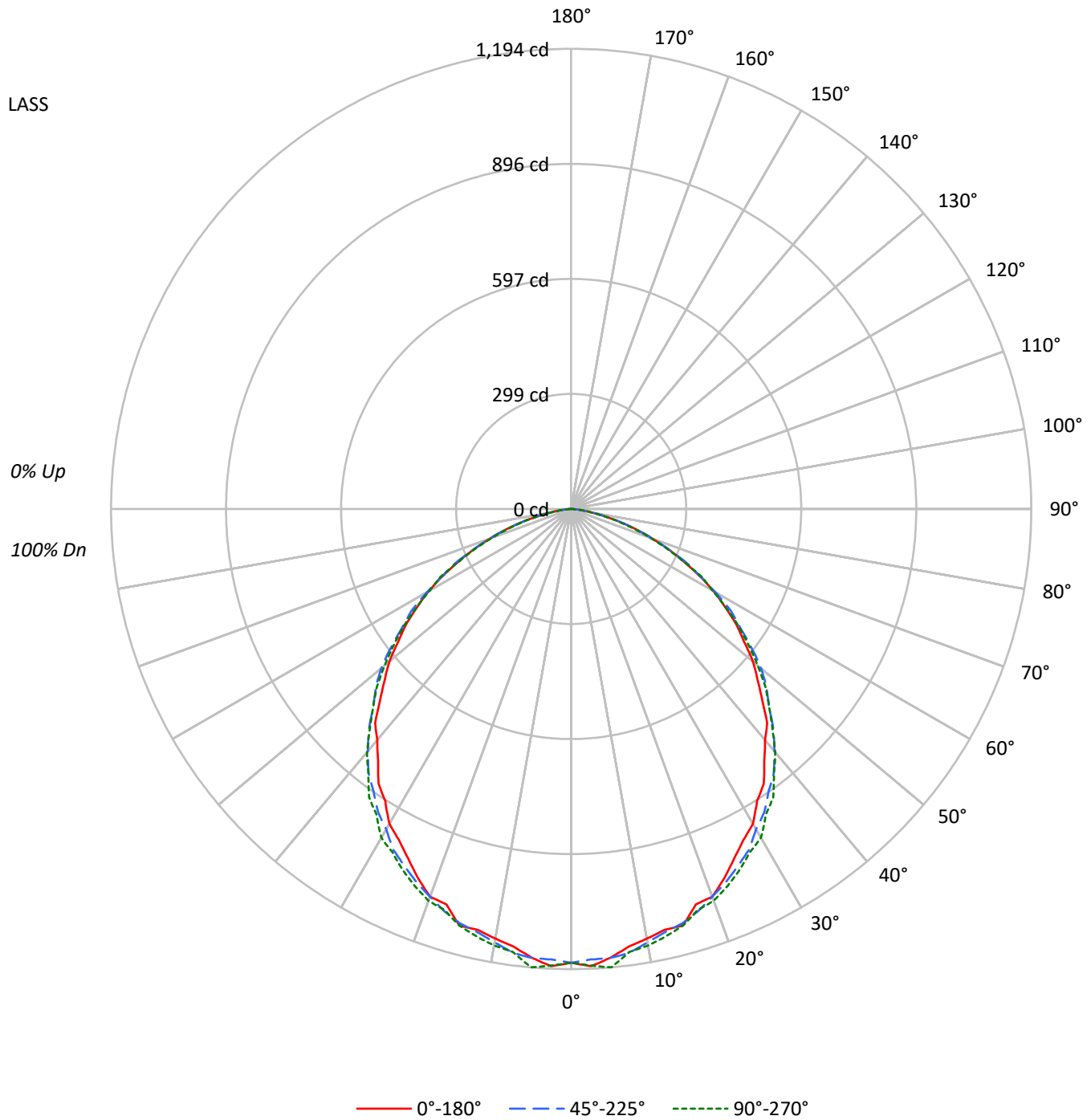
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3168	3168	3168
5°	3158	3159	3225
10°	3093	3121	3142
15°	3118	3101	3118
20°	3065	3065	3098
25°	2971	3036	3069
30°	2930	2982	3061
35°	2861	2936	3002
40°	2750	2882	2895
45°	2667	2761	2766
50°	2579	2696	2644
55°	2457	2505	2487
60°	2298	2321	2279
65°	2049	2101	2034
70°	1758	1764	1715
75°	1392	1389	1335
80°	933	907	871
85°	506	503	469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2833 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.7	3.7
10°-20°	313.8	10.6
20°-30°	470.2	15.8
30°-40°	557.3	18.8
40°-50°	558.3	18.8
50°-60°	473.9	16.0
60°-70°	319.5	10.8
70°-80°	140.4	4.7
80°-90°	22.8	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°	894.8	30.2
0°-40°	1452.1	48.9
0°-60°	2484.3	83.7
0°-90°	2967.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2967.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1177	1177	1177	1177	1177	
5°	1169	1166	1169	1166	1194	110
15°	1119	1106	1113	1119	1119	312
25°	1001	1006	1022	1036	1034	463
35°	871	874	894	914	914	541
45°	701	714	726	744	727	542
55°	524	520	534	530	530	466
65°	322	318	330	317	320	320
75°	134	131	134	124	128	143
85°	16	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°	1177.2	1177.2	1177.2	1177.2	1177.2
2.5°	1187.4	1178.4	1170.1	1179.8	1185.7
5°	1168.9	1166.1	1169.3	1165.8	1194.0
7.5°	1144.9	1155.3	1161.4	1157.6	1159.3
10°	1132.1	1128.4	1142.0	1151.4	1150.0
12.5°	1118.4	1123.9	1124.6	1134.8	1135.7
15°	1119.2	1106.2	1113.1	1118.9	1119.3
17.5°	1075.7	1089.7	1094.4	1107.6	1091.2
20°	1070.4	1060.2	1070.4	1083.9	1081.8
22.5°	1037.7	1026.3	1048.2	1060.2	1059.4
25°	1000.6	1006.1	1022.5	1035.9	1033.7
27.5°	968.1	974.5	997.9	1016.3	1004.4
30°	943.0	939.8	959.6	976.0	985.1
32.5°	898.2	909.7	932.8	949.1	940.4
35°	871.0	873.5	893.8	914.4	913.8
37.5°	823.4	835.4	863.8	869.6	864.3
40°	782.8	794.8	820.5	826.7	824.1
42.5°	752.9	755.0	777.0	784.2	772.8
45°	700.7	713.8	725.6	744.3	726.7
47.5°	656.3	662.4	687.9	693.0	683.7
50°	616.1	618.2	643.9	637.6	631.6
52.5°	565.4	574.4	588.8	587.6	580.5
55°	523.8	520.3	534.0	530.3	530.2
57.5°	473.8	479.9	491.1	485.3	476.1
60°	427.0	427.1	431.2	424.7	423.5
62.5°	374.8	376.7	377.6	369.5	382.6
65°	321.8	317.5	330.0	317.4	319.5
67.5°	273.0	275.1	273.9	266.0	269.0
70°	223.4	226.2	224.2	215.2	218.0
72.5°	178.1	174.8	176.9	165.7	170.8
75°	133.9	131.2	133.6	124.2	128.4
77.5°	91.2	93.3	91.8	86.8	89.7
80°	60.2	58.5	58.5	55.6	56.2
82.5°	35.1	33.4	33.0	32.1	33.4
85°	16.4	16.0	16.3	15.8	15.2
87.5°	5.9	6.1	6.1	5.8	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)