

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: P590396

Luminaire Tested: FSR-24-2-LD4-2STD-50-UNV-80-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590396
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-LD4-2STD-50-UNV-80-97-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 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: 3831.0 lumens
Efficiency: N/A
Efficacy: 115.0 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

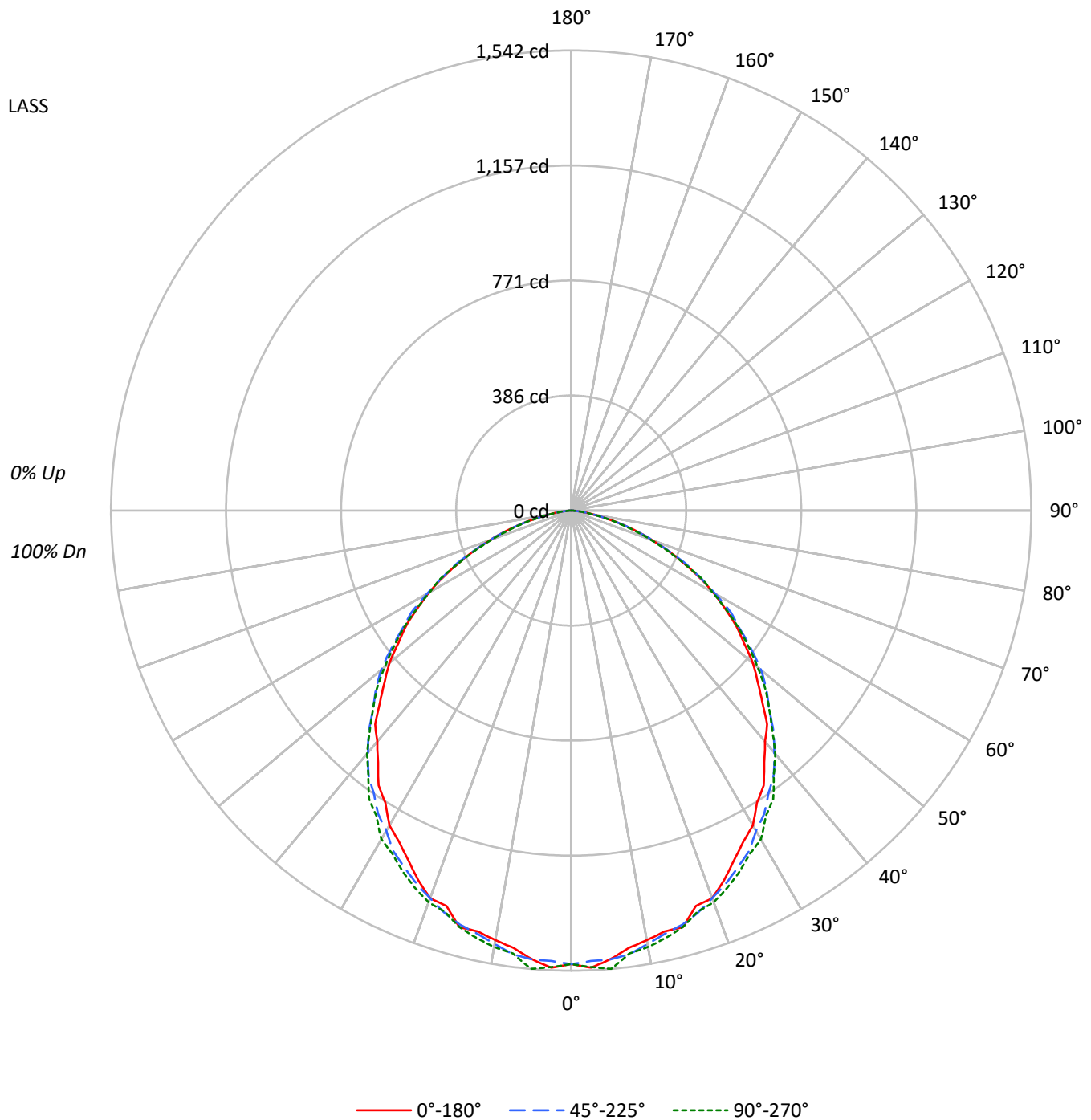
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4090	4090	4090
5°	4077	4078	4164
10°	3994	4029	4057
15°	4026	4004	4026
20°	3958	3958	4000
25°	3836	3920	3963
30°	3783	3850	3952
35°	3694	3791	3876
40°	3550	3721	3738
45°	3443	3566	3571
50°	3330	3481	3414
55°	3173	3235	3212
60°	2967	2997	2943
65°	2646	2713	2627
70°	2270	2278	2214
75°	1798	1794	1724
80°	1204	1172	1125
85°	655	648	605

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 3658 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.0	3.7
10°-20°	405.2	10.6
20°-30°	607.1	15.8
30°-40°	719.6	18.8
40°-50°	720.9	18.8
50°-60°	611.9	16.0
60°-70°	412.6	10.8
70°-80°	181.3	4.7
80°-90°	29.5	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°	1155.3	30.2
0°-40°	1874.9	48.9
0°-60°	3207.7	83.7
0°-90°	3831.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3831.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1520	1520	1520	1520	1520	
5°	1509	1506	1510	1505	1542	142
15°	1445	1428	1437	1445	1445	403
25°	1292	1299	1320	1338	1335	597
35°	1125	1128	1154	1181	1180	698
45°	905	922	937	961	938	700
55°	676	672	690	685	685	602
65°	416	410	426	410	412	413
75°	173	169	172	160	166	185
85°	21	21	21	20	20	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1520.0	1520.0	1520.0	1520.0	1520.0
2.5°	1533.2	1521.6	1510.8	1523.4	1531.0
5°	1509.2	1505.7	1509.8	1505.3	1541.6
7.5°	1478.2	1491.8	1499.6	1494.7	1496.9
10°	1461.8	1457.0	1474.5	1486.7	1484.9
12.5°	1444.1	1451.2	1452.1	1465.3	1466.5
15°	1445.1	1428.4	1437.2	1444.7	1445.3
17.5°	1388.9	1407.0	1413.1	1430.2	1409.0
20°	1382.1	1368.9	1382.1	1399.5	1396.8
22.5°	1339.9	1325.2	1353.4	1368.9	1367.9
25°	1292.0	1299.1	1320.2	1337.5	1334.8
27.5°	1250.0	1258.2	1288.5	1312.2	1296.9
30°	1217.6	1213.5	1239.0	1260.2	1272.0
32.5°	1159.7	1174.6	1204.5	1225.5	1214.3
35°	1124.6	1127.9	1154.0	1180.7	1179.9
37.5°	1063.1	1078.7	1115.4	1122.8	1115.9
40°	1010.7	1026.3	1059.4	1067.5	1064.1
42.5°	972.1	974.8	1003.3	1012.5	997.8
45°	904.8	921.6	937.0	961.1	938.3
47.5°	847.5	855.3	888.3	894.8	882.8
50°	795.4	798.2	831.4	823.3	815.5
52.5°	730.1	741.7	760.3	758.7	749.5
55°	676.3	671.8	689.5	684.8	684.6
57.5°	611.7	619.6	634.1	626.7	614.7
60°	551.3	551.5	556.8	548.4	546.8
62.5°	484.0	486.3	487.5	477.1	494.0
65°	415.5	410.0	426.1	409.8	412.5
67.5°	352.5	355.2	353.7	343.5	347.4
70°	288.5	292.0	289.5	277.9	281.4
72.5°	230.0	225.7	228.4	213.9	220.6
75°	172.9	169.4	172.5	160.3	165.8
77.5°	117.8	120.5	118.5	112.1	115.8
80°	77.7	75.6	75.6	71.8	72.6
82.5°	45.3	43.2	42.6	41.4	43.2
85°	21.2	20.6	21.0	20.4	19.6
87.5°	7.7	7.9	7.9	7.5	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)