

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: P590521

Luminaire Tested: FSR-24-2-LD4-3LO-35-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590521
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-LD4-3LO-35-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

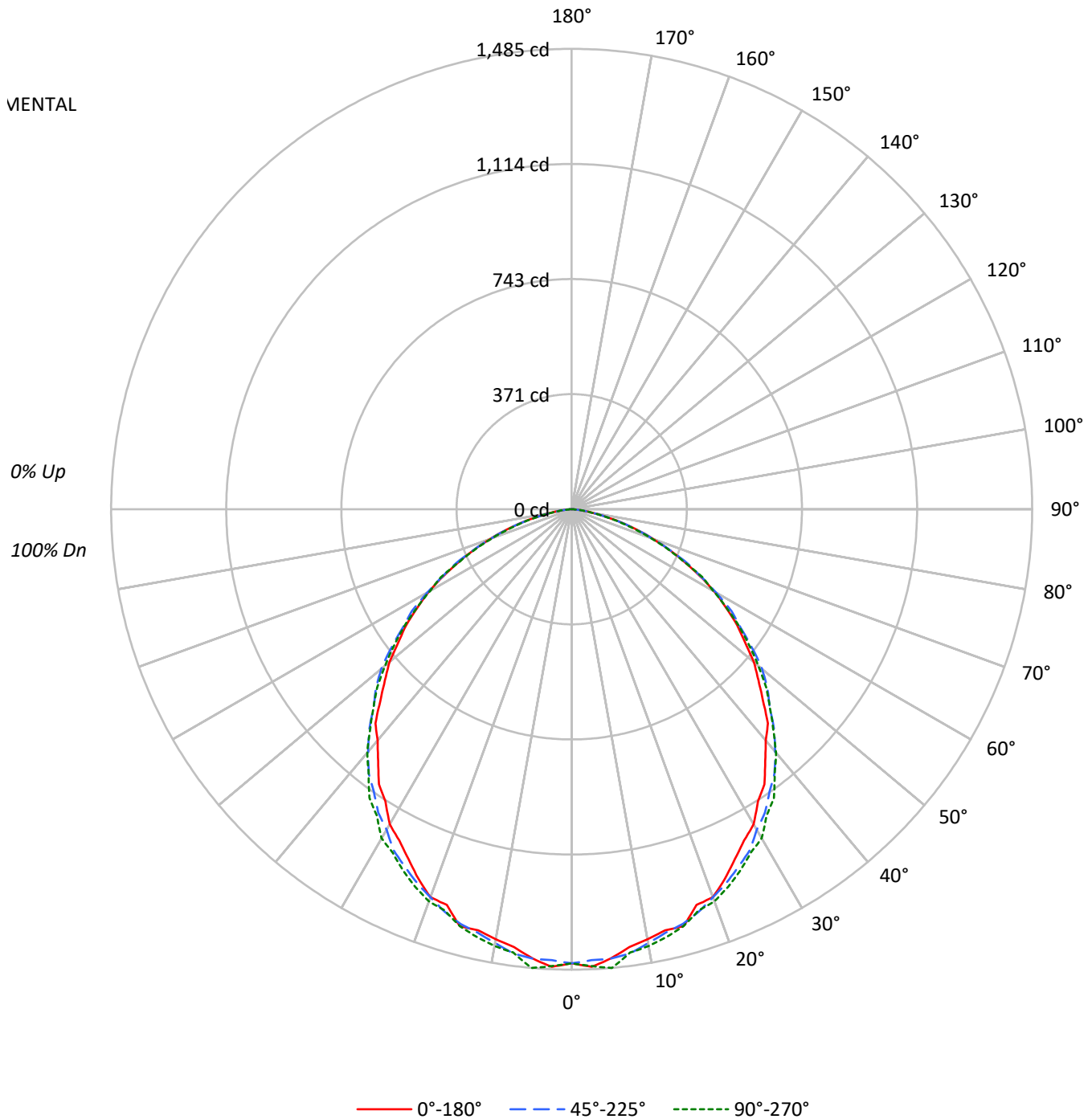
Lumens per Lamp: N/A
Luminaire Lumens: 3691.0 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	3941	3941	3941
5°	3928	3930	4012
10°	3848	3882	3909
15°	3879	3858	3879
20°	3813	3813	3854
25°	3696	3777	3818
30°	3645	3709	3808
35°	3559	3652	3734
40°	3421	3586	3601
45°	3317	3435	3440
50°	3208	3353	3289
55°	3057	3117	3094
60°	2859	2887	2835
65°	2549	2614	2531
70°	2187	2194	2134
75°	1732	1728	1661
80°	1161	1128	1085
85°	630	624	584

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 3524 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.8	3.7
10°-20°	390.4	10.6
20°-30°	584.9	15.8
30°-40°	693.3	18.8
40°-50°	694.6	18.8
50°-60°	589.6	16.0
60°-70°	397.5	10.8
70°-80°	174.7	4.7
80°-90°	28.4	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°	1113.1	30.2
0°-40°	1806.4	48.9
0°-60°	3090.5	83.7
0°-90°	3691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3691.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1464	1464	1464	1464	1464	
5°	1454	1451	1455	1450	1485	137
15°	1392	1376	1385	1392	1392	388
25°	1245	1252	1272	1289	1286	575
35°	1084	1087	1112	1138	1137	673
45°	872	888	903	926	904	674
55°	652	647	664	660	660	580
65°	400	395	410	395	398	398
75°	167	163	166	154	160	179
85°	20	20	20	20	19	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1464.5	1464.5	1464.5	1464.5	1464.5
2.5°	1477.2	1466.0	1455.6	1467.7	1475.1
5°	1454.1	1450.7	1454.7	1450.3	1485.3
7.5°	1424.2	1437.3	1444.8	1440.1	1442.2
10°	1408.3	1403.8	1420.6	1432.4	1430.6
12.5°	1391.3	1398.1	1399.1	1411.7	1412.9
15°	1392.3	1376.2	1384.7	1391.9	1392.5
17.5°	1338.2	1355.6	1361.4	1377.9	1357.5
20°	1331.6	1318.9	1331.6	1348.4	1345.7
22.5°	1290.9	1276.7	1304.0	1318.9	1318.0
25°	1244.8	1251.6	1272.0	1288.6	1286.0
27.5°	1204.3	1212.3	1241.4	1264.3	1249.5
30°	1173.1	1169.1	1193.7	1214.1	1225.5
32.5°	1117.3	1131.7	1160.4	1180.7	1169.9
35°	1083.5	1086.7	1111.8	1137.6	1136.8
37.5°	1024.3	1039.2	1074.6	1081.8	1075.2
40°	973.8	988.7	1020.7	1028.5	1025.2
42.5°	936.6	939.2	966.6	975.5	961.3
45°	871.7	888.0	902.7	926.0	904.0
47.5°	816.5	824.1	855.8	862.1	850.5
50°	766.4	769.0	801.0	793.2	785.7
52.5°	703.4	714.6	732.5	731.0	722.1
55°	651.6	647.3	664.3	659.7	659.5
57.5°	589.4	597.0	610.9	603.8	592.2
60°	531.2	531.3	536.4	528.3	526.8
62.5°	466.3	468.6	469.7	459.7	475.9
65°	400.3	395.0	410.5	394.8	397.5
67.5°	339.6	342.3	340.7	330.9	334.7
70°	278.0	281.4	278.9	267.8	271.2
72.5°	221.6	217.5	220.1	206.1	212.5
75°	166.6	163.2	166.2	154.5	159.8
77.5°	113.5	116.1	114.2	108.0	111.6
80°	74.9	72.8	72.8	69.2	70.0
82.5°	43.7	41.6	41.0	39.9	41.6
85°	20.4	19.9	20.2	19.7	18.9
87.5°	7.4	7.6	7.6	7.2	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)