

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: P590326

Luminaire Tested: FSR-24-2-LD4-2STD-35-UNV-80-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590326
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-35-UNV-80-85-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3825.0 lumens
Efficiency: N/A
Efficacy: 114.9 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

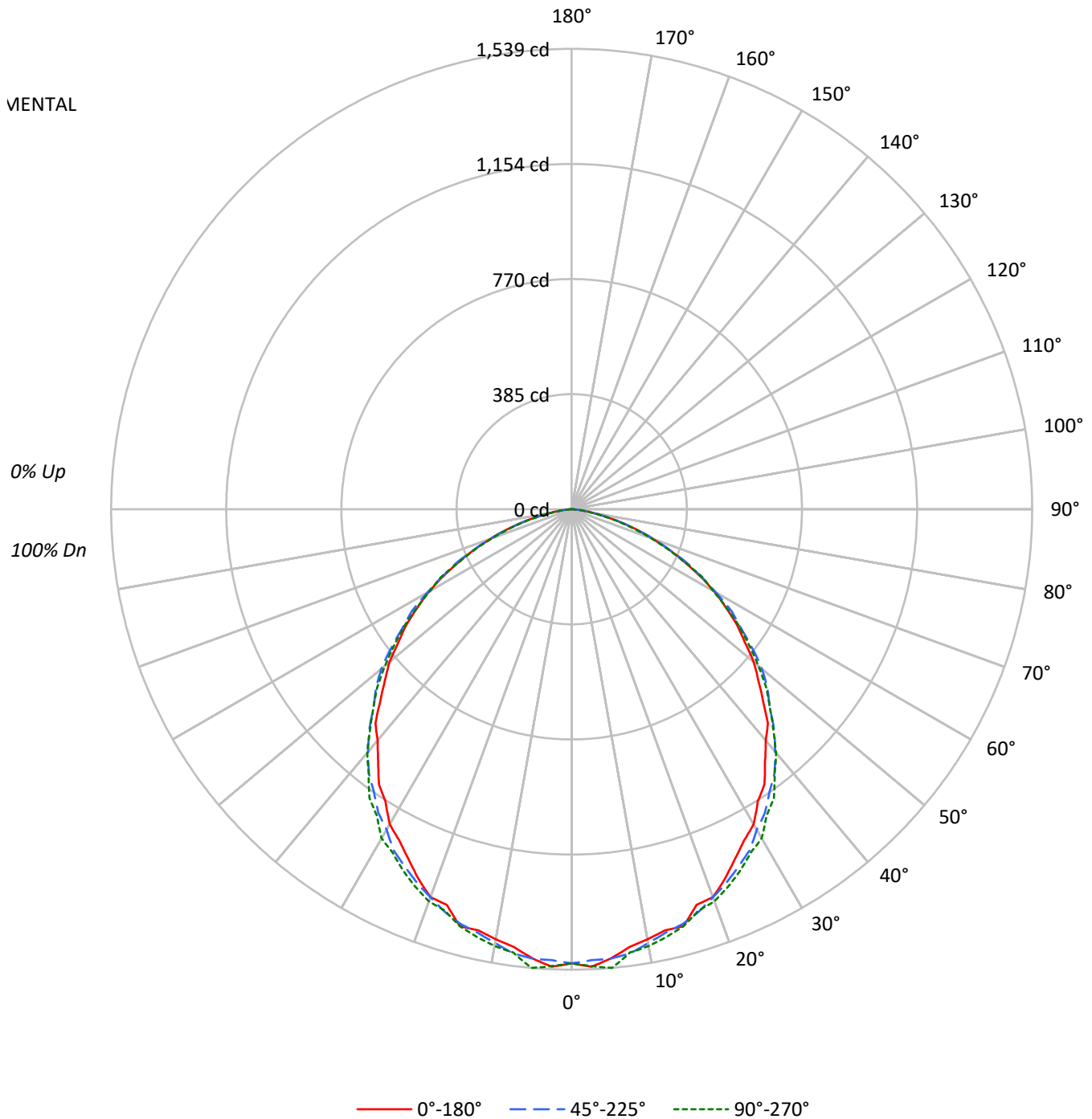
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4084	4084	4084
5°	4071	4072	4158
10°	3988	4023	4051
15°	4020	3998	4020
20°	3952	3952	3994
25°	3830	3914	3957
30°	3778	3844	3946
35°	3688	3785	3870
40°	3545	3716	3732
45°	3438	3560	3565
50°	3325	3475	3409
55°	3168	3230	3207
60°	2962	2992	2938
65°	2641	2709	2623
70°	2267	2274	2211
75°	1795	1790	1722
80°	1203	1168	1124
85°	655	648	605

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 3652 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.8	3.7
10°-20°	404.6	10.6
20°-30°	606.2	15.8
30°-40°	718.4	18.8
40°-50°	719.8	18.8
50°-60°	611.0	16.0
60°-70°	411.9	10.8
70°-80°	181.0	4.7
80°-90°	29.4	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°	1153.5	30.2
0°-40°	1872.0	48.9
0°-60°	3202.7	83.7
0°-90°	3825.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3825.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1518	1518	1518	1518	1518	
5°	1507	1503	1508	1503	1539	142
15°	1443	1426	1435	1442	1443	402
25°	1290	1297	1318	1335	1333	596
35°	1123	1126	1152	1179	1178	697
45°	903	920	936	960	937	699
55°	675	671	688	684	684	601
65°	415	409	425	409	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°	1517.7	1517.7	1517.7	1517.7	1517.7
2.5°	1530.8	1519.2	1508.5	1521.0	1528.6
5°	1506.9	1503.4	1507.5	1503.0	1539.2
7.5°	1475.9	1489.4	1497.3	1492.4	1494.5
10°	1459.5	1454.8	1472.2	1484.4	1482.6
12.5°	1441.8	1448.9	1449.9	1463.0	1464.2
15°	1442.8	1426.2	1435.0	1442.4	1443.0
17.5°	1386.8	1404.8	1410.9	1427.9	1406.8
20°	1379.9	1366.8	1379.9	1397.3	1394.6
22.5°	1337.8	1323.1	1351.3	1366.8	1365.8
25°	1290.0	1297.0	1318.2	1335.4	1332.7
27.5°	1248.0	1256.3	1286.4	1310.1	1294.9
30°	1215.7	1211.6	1237.1	1258.2	1270.0
32.5°	1157.9	1172.8	1202.6	1223.5	1212.4
35°	1122.8	1126.1	1152.2	1178.9	1178.1
37.5°	1061.5	1077.0	1113.6	1121.1	1114.2
40°	1009.2	1024.6	1057.8	1065.8	1062.5
42.5°	970.6	973.3	1001.7	1010.9	996.2
45°	903.3	920.2	935.5	959.6	936.9
47.5°	846.1	854.0	886.9	893.4	881.4
50°	794.2	796.9	830.1	822.0	814.2
52.5°	728.9	740.5	759.1	757.6	748.3
55°	675.3	670.8	688.4	683.7	683.5
57.5°	610.8	618.6	633.1	625.7	613.7
60°	550.4	550.6	555.9	547.5	545.9
62.5°	483.2	485.6	486.7	476.4	493.2
65°	414.8	409.3	425.4	409.2	411.9
67.5°	351.9	354.7	353.1	342.9	346.8
70°	288.1	291.6	289.0	277.5	281.0
72.5°	229.7	225.3	228.1	213.6	220.3
75°	172.6	169.1	172.2	160.1	165.6
77.5°	117.6	120.3	118.4	111.9	115.6
80°	77.6	75.4	75.4	71.7	72.5
82.5°	45.3	43.1	42.5	41.3	43.1
85°	21.2	20.6	21.0	20.4	19.6
87.5°	7.6	7.8	7.8	7.4	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)