

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: P590421

Luminaire Tested: FSR-24-2-LD4-3HI-35-UNV-80-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590421
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-LD4-3HI-35-UNV-80-84-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

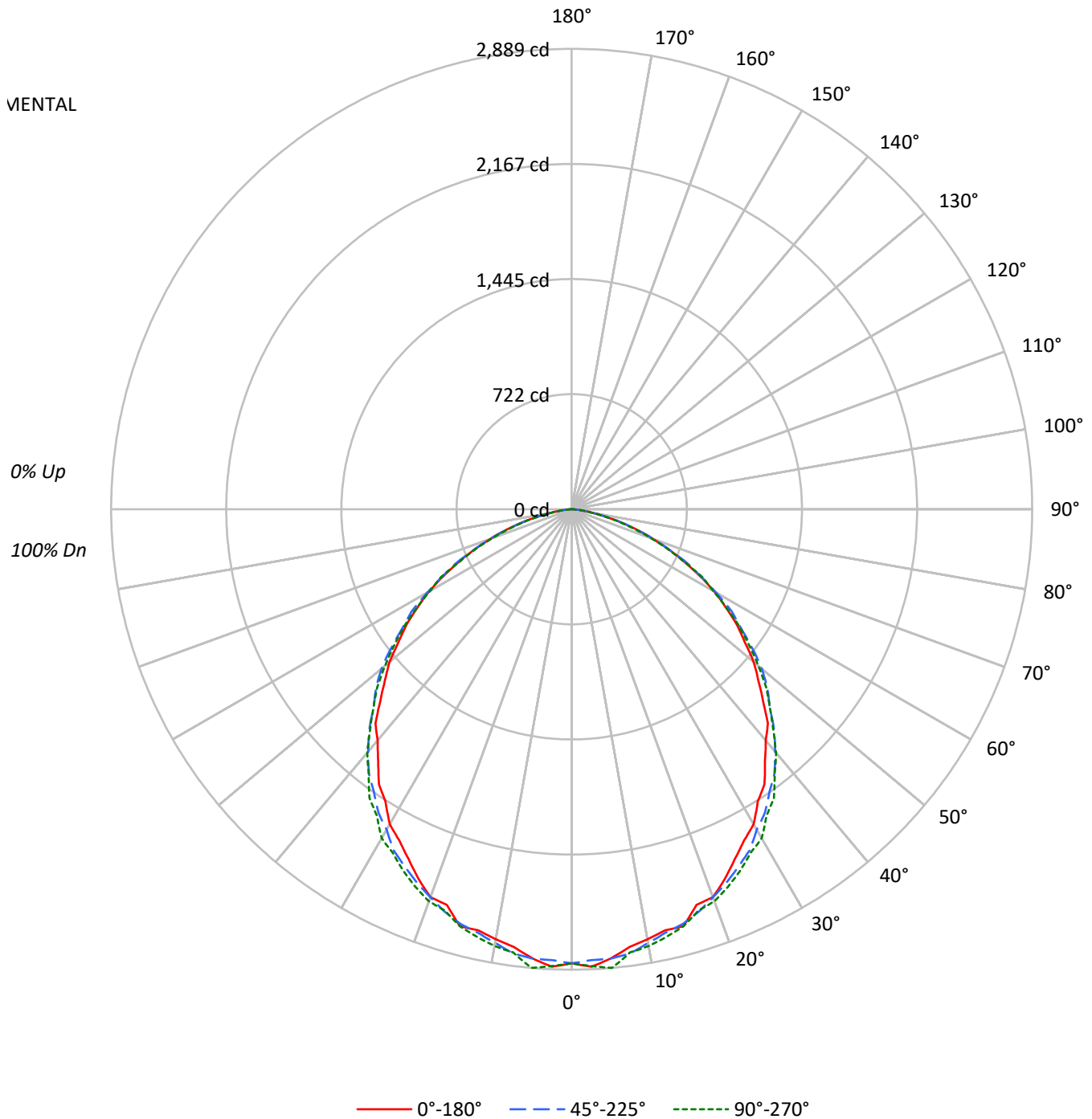
Lumens per Lamp: N/A
Luminaire Lumens: 7180.0 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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



TEST NUMBER: P590421
CATALOG NUMBER: FSR-24-2-LD4-3HI-35-UNV-80-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590421

CATALOG NUMBER: FSR-24-2-LD4-3HI-35-UNV-80-84-EDD

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°	7666	7666	7666
5°	7641	7644	7805
10°	7486	7551	7605
15°	7545	7504	7546
20°	7418	7418	7497
25°	7190	7347	7428
30°	7091	7215	7407
35°	6924	7105	7265
40°	6654	6975	7006
45°	6453	6683	6693
50°	6241	6523	6398
55°	5947	6062	6019
60°	5561	5616	5515
65°	4958	5085	4923
70°	4254	4268	4150
75°	3370	3361	3231
80°	2258	2194	2109
85°	1226	1216	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6855 cd/sqm



TEST NUMBER: P590421

CATALOG NUMBER: FSR-24-2-LD4-3HI-35-UNV-80-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.0	3.7
10°-20°	759.5	10.6
20°-30°	1137.9	15.8
30°-40°	1348.6	18.8
40°-50°	1351.1	18.8
50°-60°	1146.8	16.0
60°-70°	773.2	10.8
70°-80°	339.7	4.7
80°-90°	55.2	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°	2165.3	30.2
0°-40°	3513.9	48.9
0°-60°	6011.8	83.7
0°-90°	7180.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7180.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2849	2849	2849	2849	2849	
5°	2829	2822	2830	2821	2889	267
15°	2708	2677	2694	2708	2709	755
25°	2421	2435	2474	2507	2502	1119
35°	2108	2114	2163	2213	2211	1309
45°	1696	1727	1756	1801	1759	1312
55°	1268	1259	1292	1283	1283	1128
65°	779	768	799	768	773	774
75°	324	317	323	300	311	347
85°	40	39	39	38	37	58
90°	0	0	0	0	0	

TEST NUMBER: P590421

CATALOG NUMBER: FSR-24-2-LD4-3HI-35-UNV-80-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2848.8	2848.8	2848.8	2848.8	2848.8
2.5°	2873.5	2851.8	2831.6	2855.1	2869.4
5°	2828.6	2822.0	2829.7	2821.3	2889.3
7.5°	2770.5	2795.9	2810.6	2801.4	2805.4
10°	2739.6	2730.8	2763.5	2786.3	2783.0
12.5°	2706.5	2719.7	2721.6	2746.2	2748.4
15°	2708.3	2677.1	2693.6	2707.6	2708.7
17.5°	2603.1	2637.0	2648.4	2680.4	2640.7
20°	2590.3	2565.6	2590.3	2623.0	2617.8
22.5°	2511.2	2483.6	2536.6	2565.6	2563.8
25°	2421.4	2434.7	2474.4	2506.8	2501.6
27.5°	2342.7	2358.2	2414.8	2459.3	2430.6
30°	2282.0	2274.3	2322.1	2361.8	2383.9
32.5°	2173.5	2201.5	2257.4	2296.7	2275.8
35°	2107.7	2113.9	2162.8	2212.9	2211.4
37.5°	1992.5	2021.6	2090.4	2104.4	2091.5
40°	1894.3	1923.4	1985.5	2000.6	1994.4
42.5°	1821.9	1827.0	1880.3	1897.6	1870.0
45°	1695.7	1727.3	1756.0	1801.3	1758.6
47.5°	1588.3	1603.0	1664.8	1676.9	1654.5
50°	1490.8	1496.0	1558.1	1543.0	1528.3
52.5°	1368.3	1390.0	1425.0	1422.0	1404.7
55°	1267.5	1259.1	1292.2	1283.4	1283.0
57.5°	1146.5	1161.2	1188.5	1174.5	1152.0
60°	1033.2	1033.6	1043.5	1027.7	1024.8
62.5°	907.1	911.5	913.7	894.2	925.8
65°	778.7	768.4	798.6	768.0	773.2
67.5°	660.6	665.8	662.8	643.7	651.1
70°	540.7	547.3	542.5	520.8	527.5
72.5°	431.1	423.0	428.2	400.9	413.4
75°	324.1	317.4	323.3	300.5	310.8
77.5°	220.7	225.8	222.2	210.0	217.0
80°	145.7	141.6	141.6	134.6	136.1
82.5°	85.0	80.9	79.8	77.6	80.9
85°	39.7	38.6	39.4	38.3	36.8
87.5°	14.3	14.7	14.7	14.0	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)