

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: P590487

Luminaire Tested: FSR-24-2-LD4-3HI-50-UNV-80-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590487
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-50-UNV-80-86-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

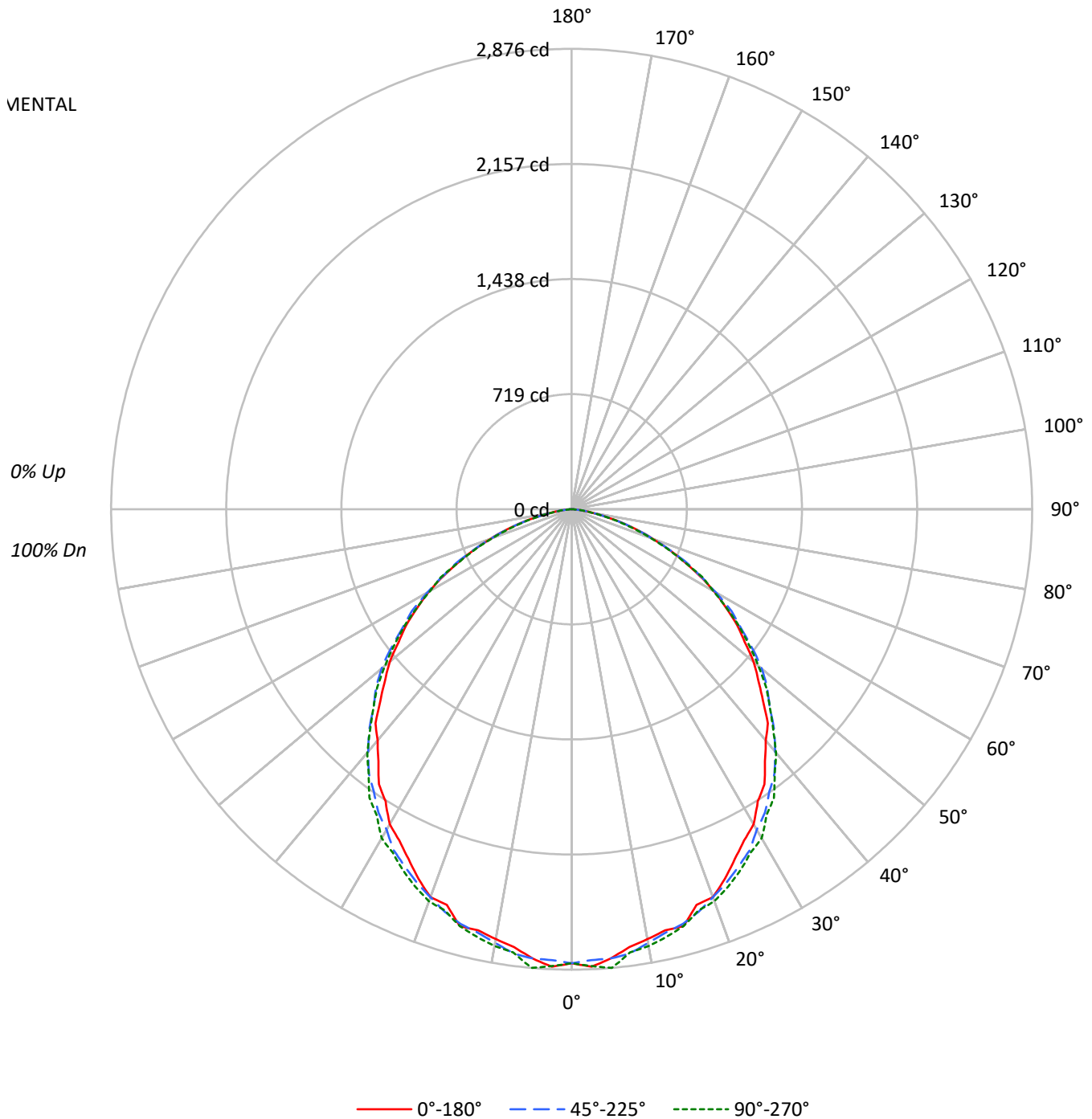
Lumens per Lamp: N/A
Luminaire Lumens: 7147.0 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P590487
CATALOG NUMBER: FSR-24-2-LD4-3HI-50-UNV-80-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590487

CATALOG NUMBER: FSR-24-2-LD4-3HI-50-UNV-80-86-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°	7631	7631	7631
5°	7606	7609	7769
10°	7452	7517	7570
15°	7511	7470	7511
20°	7384	7384	7462
25°	7157	7313	7394
30°	7058	7182	7373
35°	6892	7072	7231
40°	6624	6943	6974
45°	6424	6652	6662
50°	6213	6493	6369
55°	5919	6034	5992
60°	5535	5590	5490
65°	4935	5061	4900
70°	4235	4249	4131
75°	3354	3346	3217
80°	2247	2185	2100
85°	1220	1210	1130

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6823 cd/sqm



TEST NUMBER: P590487

CATALOG NUMBER: FSR-24-2-LD4-3HI-50-UNV-80-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.7	3.7
10°-20°	756.0	10.6
20°-30°	1132.6	15.8
30°-40°	1342.4	18.8
40°-50°	1344.9	18.8
50°-60°	1141.6	16.0
60°-70°	769.7	10.8
70°-80°	338.2	4.7
80°-90°	55.0	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°	2155.4	30.2
0°-40°	3497.7	48.9
0°-60°	5984.2	83.7
0°-90°	7147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7147.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2836	2836	2836	2836	2836	
5°	2816	2809	2817	2808	2876	265
15°	2696	2665	2681	2695	2696	751
25°	2410	2424	2463	2495	2490	1114
35°	2098	2104	2153	2203	2201	1303
45°	1688	1719	1748	1793	1750	1306
55°	1262	1253	1286	1278	1277	1122
65°	775	765	795	764	770	771
75°	323	316	322	299	309	346
85°	40	38	39	38	37	57
90°	0	0	0	0	0	



TEST NUMBER: P590487

CATALOG NUMBER: FSR-24-2-LD4-3HI-50-UNV-80-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2835.7	2835.7	2835.7	2835.7	2835.7
2.5°	2860.3	2838.7	2818.5	2842.0	2856.3
5°	2815.6	2809.0	2816.7	2808.3	2876.0
7.5°	2757.8	2783.0	2797.7	2788.5	2792.5
10°	2727.0	2718.2	2750.8	2773.5	2770.2
12.5°	2694.1	2707.2	2709.1	2733.6	2735.8
15°	2695.9	2664.8	2681.2	2695.2	2696.2
17.5°	2591.2	2624.9	2636.2	2668.1	2628.5
20°	2578.4	2553.8	2578.4	2610.9	2605.8
22.5°	2499.6	2472.2	2524.9	2553.8	2552.0
25°	2410.3	2423.5	2463.0	2495.2	2490.1
27.5°	2331.9	2347.3	2403.7	2448.0	2419.4
30°	2271.5	2263.8	2311.4	2351.0	2372.9
32.5°	2163.5	2191.3	2247.0	2286.2	2265.3
35°	2098.0	2104.2	2152.9	2202.7	2201.2
37.5°	1983.4	2012.3	2080.8	2094.7	2081.9
40°	1885.6	1914.5	1976.4	1991.4	1985.2
42.5°	1813.5	1818.6	1871.7	1888.9	1861.5
45°	1687.9	1719.4	1747.9	1793.0	1750.5
47.5°	1581.0	1595.6	1657.1	1669.2	1646.9
50°	1484.0	1489.1	1551.0	1536.0	1521.3
52.5°	1362.0	1383.6	1418.4	1415.5	1398.3
55°	1261.7	1253.3	1286.2	1277.5	1277.1
57.5°	1141.3	1155.9	1183.0	1169.1	1146.7
60°	1028.5	1028.9	1038.7	1023.0	1020.1
62.5°	902.9	907.3	909.5	890.1	921.6
65°	775.1	764.9	794.9	764.5	769.6
67.5°	657.6	662.7	659.8	640.7	648.1
70°	538.2	544.8	540.1	518.5	525.0
72.5°	429.1	421.1	426.2	399.1	411.5
75°	322.6	316.0	321.8	299.1	309.4
77.5°	219.7	224.8	221.1	209.1	216.0
80°	145.0	141.0	141.0	134.0	135.5
82.5°	84.6	80.6	79.5	77.3	80.6
85°	39.5	38.4	39.2	38.1	36.6
87.5°	14.3	14.6	14.6	13.9	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)