

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: P563292

Luminaire Tested: FSR-24-4-LD4-3LO-35-UNV-82-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563292
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-3LO-35-UNV-82-96-EDD-90
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6743.0 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

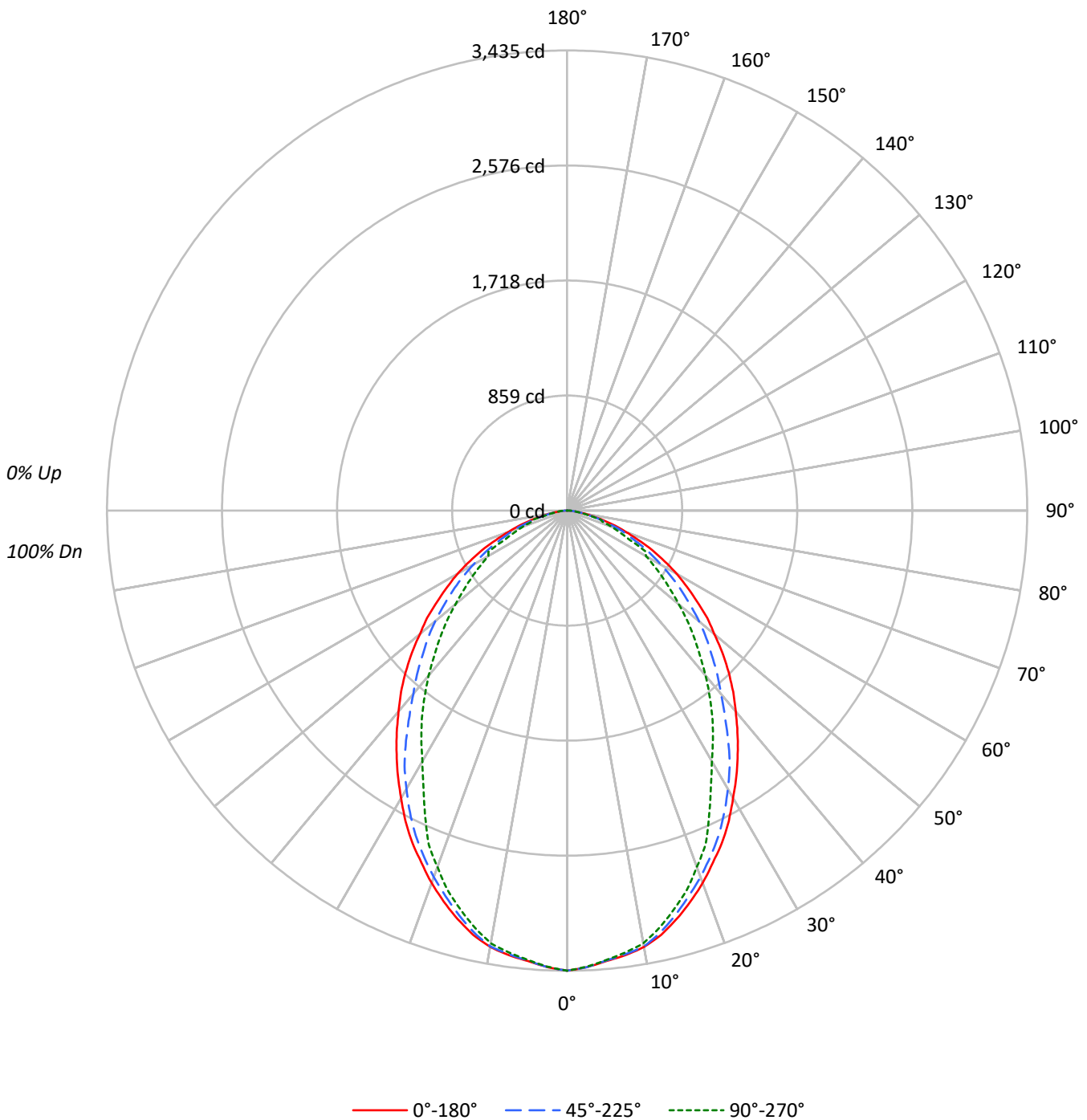
Input Watts (W): 70.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P563292

CATALOG NUMBER: FSR-24-4-LD4-3LO-35-UNV-82-96-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P563292

CATALOG NUMBER: FSR-24-4-LD4-3LO-35-UNV-82-96-EDD-90

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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89					87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77					75				
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67					65				
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46					44				
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42					40				
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38					36				
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34					33				
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32					30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4621	4621	4621
5°	4559	4553	4548
10°	4519	4514	4481
15°	4397	4353	4292
20°	4236	4168	4054
25°	4062	3973	3726
30°	3850	3726	3356
35°	3646	3444	3105
40°	3438	3139	2825
45°	3241	2901	2554
50°	3001	2693	2277
55°	2776	2441	2040
60°	2543	2180	1827
65°	2238	1909	1618
70°	1843	1672	1375
75°	1465	1280	1342
80°	985	923	862
85°	613	736	858

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3241 cd/sqm



TEST NUMBER: P563292

CATALOG NUMBER: FSR-24-4-LD4-3LO-35-UNV-82-96-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.7	4.7
10°-20°	877.5	13.0
20°-30°	1214.8	18.0
30°-40°	1295.3	19.2
40°-50°	1181.7	17.5
50°-60°	925.8	13.7
60°-70°	603.4	8.9
70°-80°	267.3	4.0
80°-90°	57.4	0.9
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°	2412.0	35.8
0°-40°	3707.4	55.0
0°-60°	5814.9	86.2
0°-90°	6743.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6743.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3435	3435	3435	3435	3435	
5°	3375	3371	3371	3367	3367	320
15°	3157	3157	3125	3093	3081	887
25°	2736	2720	2676	2581	2510	1256
35°	2220	2204	2097	1938	1890	1388
45°	1704	1668	1525	1398	1342	1312
55°	1183	1148	1040	917	870	1061
65°	703	663	600	612	508	693
75°	282	262	246	234	258	302
85°	40	44	48	52	56	55
90°	0	0	0	0	0	



TEST NUMBER: P563292

CATALOG NUMBER: FSR-24-4-LD4-3LO-35-UNV-82-96-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3434.8	3434.8	3434.8	3434.8	3434.8
2.5°	3411.0	3411.0	3411.0	3407.0	3407.0
5°	3375.2	3371.3	3371.3	3367.3	3367.3
7.5°	3347.4	3343.5	3339.5	3335.5	3327.6
10°	3307.7	3307.7	3303.8	3283.9	3279.9
12.5°	3244.2	3240.2	3224.3	3196.5	3188.6
15°	3156.8	3156.8	3125.1	3093.3	3081.4
17.5°	3061.5	3057.6	3017.9	2986.1	2970.2
20°	2958.3	2950.3	2910.6	2859.0	2831.2
22.5°	2843.1	2843.1	2795.5	2728.0	2700.2
25°	2735.9	2720.0	2676.4	2581.1	2509.6
27.5°	2612.8	2589.0	2541.4	2406.3	2323.0
30°	2477.8	2465.9	2398.4	2223.7	2160.1
32.5°	2350.7	2330.9	2259.4	2076.8	2025.1
35°	2219.7	2203.8	2096.6	1937.8	1890.1
37.5°	2088.7	2068.8	1933.8	1806.7	1747.2
40°	1957.6	1933.8	1786.9	1671.7	1608.2
42.5°	1834.5	1802.8	1659.8	1536.7	1465.2
45°	1703.5	1667.8	1524.8	1397.7	1342.2
47.5°	1572.5	1540.7	1409.7	1278.6	1215.1
50°	1433.5	1405.7	1286.6	1155.5	1088.0
52.5°	1318.3	1274.6	1159.5	1028.5	972.9
55°	1183.3	1147.6	1040.4	917.3	869.6
57.5°	1060.2	1024.5	925.2	810.1	770.3
60°	945.1	893.4	810.1	710.8	679.0
62.5°	818.0	778.3	706.8	623.4	663.1
65°	702.8	663.1	599.6	611.5	508.3
67.5°	575.8	555.9	500.3	444.7	428.9
70°	468.6	444.7	424.9	365.3	349.4
72.5°	373.3	349.4	321.6	289.9	278.0
75°	281.9	262.1	246.2	234.3	258.1
77.5°	194.6	186.6	174.7	162.8	158.8
80°	127.1	123.1	119.1	115.2	111.2
82.5°	75.4	75.4	75.4	75.4	75.4
85°	39.7	43.7	47.7	51.6	55.6
87.5°	23.8	23.8	27.8	31.8	35.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)