

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: P563033

Luminaire Tested: FSR-24-4-LD4-2STD-50-UNV-82-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563033
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-LD4-2STD-50-UNV-82-88-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6295.0 lumens
Efficiency: N/A
Efficacy: 94.5 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

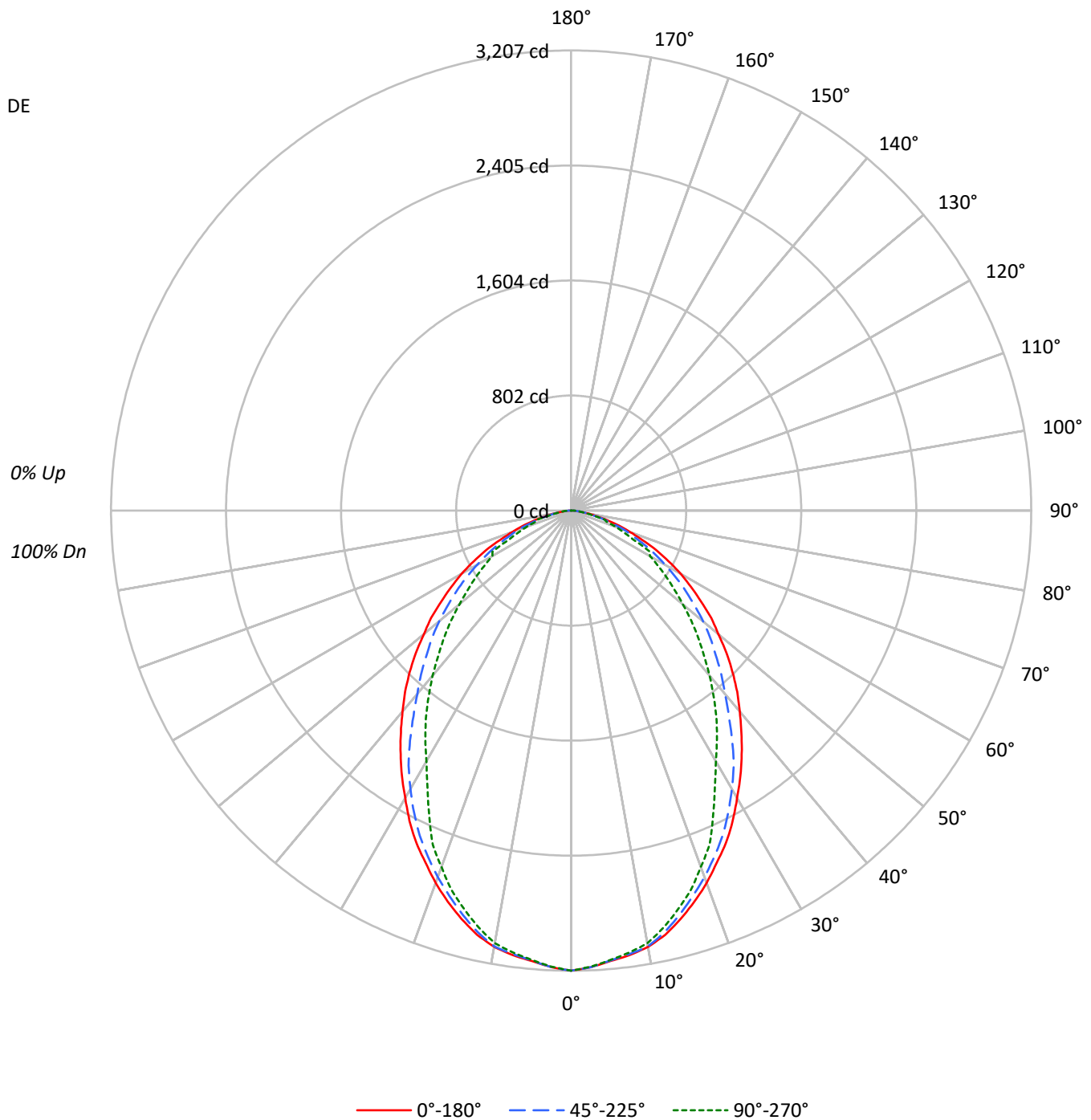
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P563033

CATALOG NUMBER: FSR-24-4-LD4-2STD-50-UNV-82-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P563033

CATALOG NUMBER: FSR-24-4-LD4-2STD-50-UNV-82-88-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	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												87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75												75																
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65												65																
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56												56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50												50																
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44												44																
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40												40																
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36												36																
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33												33																
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30												30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4314	4314	4314
5°	4256	4251	4246
10°	4219	4214	4183
15°	4105	4064	4007
20°	3954	3891	3784
25°	3792	3709	3478
30°	3594	3479	3133
35°	3404	3215	2898
40°	3210	2930	2637
45°	3026	2709	2384
50°	2801	2514	2126
55°	2591	2278	1904
60°	2374	2035	1706
65°	2089	1782	1511
70°	1721	1561	1283
75°	1368	1195	1253
80°	919	862	804
85°	573	687	801

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3026 cd/sqm

TEST NUMBER: P563033

CATALOG NUMBER: FSR-24-4-LD4-2STD-50-UNV-82-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.5	4.7
10°-20°	819.2	13.0
20°-30°	1134.1	18.0
30°-40°	1209.3	19.2
40°-50°	1103.2	17.5
50°-60°	864.3	13.7
60°-70°	563.3	8.9
70°-80°	249.6	4.0
80°-90°	53.6	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°	2251.8	35.8
0°-40°	3461.1	55.0
0°-60°	5428.5	86.2
0°-90°	6295.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6295.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3207	3207	3207	3207	3207	
5°	3151	3147	3147	3144	3144	299
15°	2947	2947	2917	2888	2877	829
25°	2554	2539	2498	2410	2343	1173
35°	2072	2057	1957	1809	1765	1296
45°	1590	1557	1424	1305	1253	1225
55°	1105	1071	971	856	812	991
65°	656	619	560	571	474	647
75°	263	245	230	219	241	282
85°	37	41	44	48	52	51
90°	0	0	0	0	0	



TEST NUMBER: P563033

CATALOG NUMBER: FSR-24-4-LD4-2STD-50-UNV-82-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3206.6	3206.6	3206.6	3206.6	3206.6
2.5°	3184.3	3184.3	3184.3	3180.6	3180.6
5°	3151.0	3147.3	3147.3	3143.6	3143.6
7.5°	3125.0	3121.3	3117.6	3113.9	3106.5
10°	3088.0	3088.0	3084.3	3065.7	3062.0
12.5°	3028.7	3024.9	3010.1	2984.2	2976.8
15°	2947.1	2947.1	2917.4	2887.8	2876.7
17.5°	2858.1	2854.4	2817.3	2787.7	2772.9
20°	2761.7	2754.3	2717.3	2669.1	2643.1
22.5°	2654.2	2654.2	2609.8	2546.7	2520.8
25°	2554.1	2539.3	2498.5	2409.6	2342.8
27.5°	2439.2	2417.0	2372.5	2246.5	2168.6
30°	2313.2	2302.1	2239.1	2075.9	2016.6
32.5°	2194.6	2176.0	2109.3	1938.8	1890.6
35°	2072.2	2057.4	1957.3	1809.0	1764.6
37.5°	1949.9	1931.4	1805.3	1686.7	1631.1
40°	1827.6	1805.3	1668.2	1560.7	1501.4
42.5°	1712.7	1683.0	1549.5	1434.6	1367.9
45°	1590.3	1557.0	1423.5	1304.9	1253.0
47.5°	1468.0	1438.3	1316.0	1193.7	1134.4
50°	1338.2	1312.3	1201.1	1078.7	1015.7
52.5°	1230.7	1190.0	1082.5	960.1	908.2
55°	1104.7	1071.3	971.2	856.3	811.8
57.5°	989.8	956.4	863.7	756.2	719.2
60°	882.3	834.1	756.2	663.6	633.9
62.5°	763.7	726.6	659.9	582.0	619.1
65°	656.1	619.1	559.8	570.9	474.5
67.5°	537.5	519.0	467.1	415.2	400.4
70°	437.4	415.2	396.7	341.0	326.2
72.5°	348.5	326.2	300.3	270.6	259.5
75°	263.2	244.7	229.8	218.7	241.0
77.5°	181.6	174.2	163.1	152.0	148.3
80°	118.6	114.9	111.2	107.5	103.8
82.5°	70.4	70.4	70.4	70.4	70.4
85°	37.1	40.8	44.5	48.2	51.9
87.5°	22.2	22.2	25.9	29.7	33.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)