

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: P562909

Luminaire Tested: FSR-24-4-LD4-2STD-35-UNV-82-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562909
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-35-UNV-82-96-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7195.0 lumens
Efficiency: N/A
Efficacy: 108.0 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

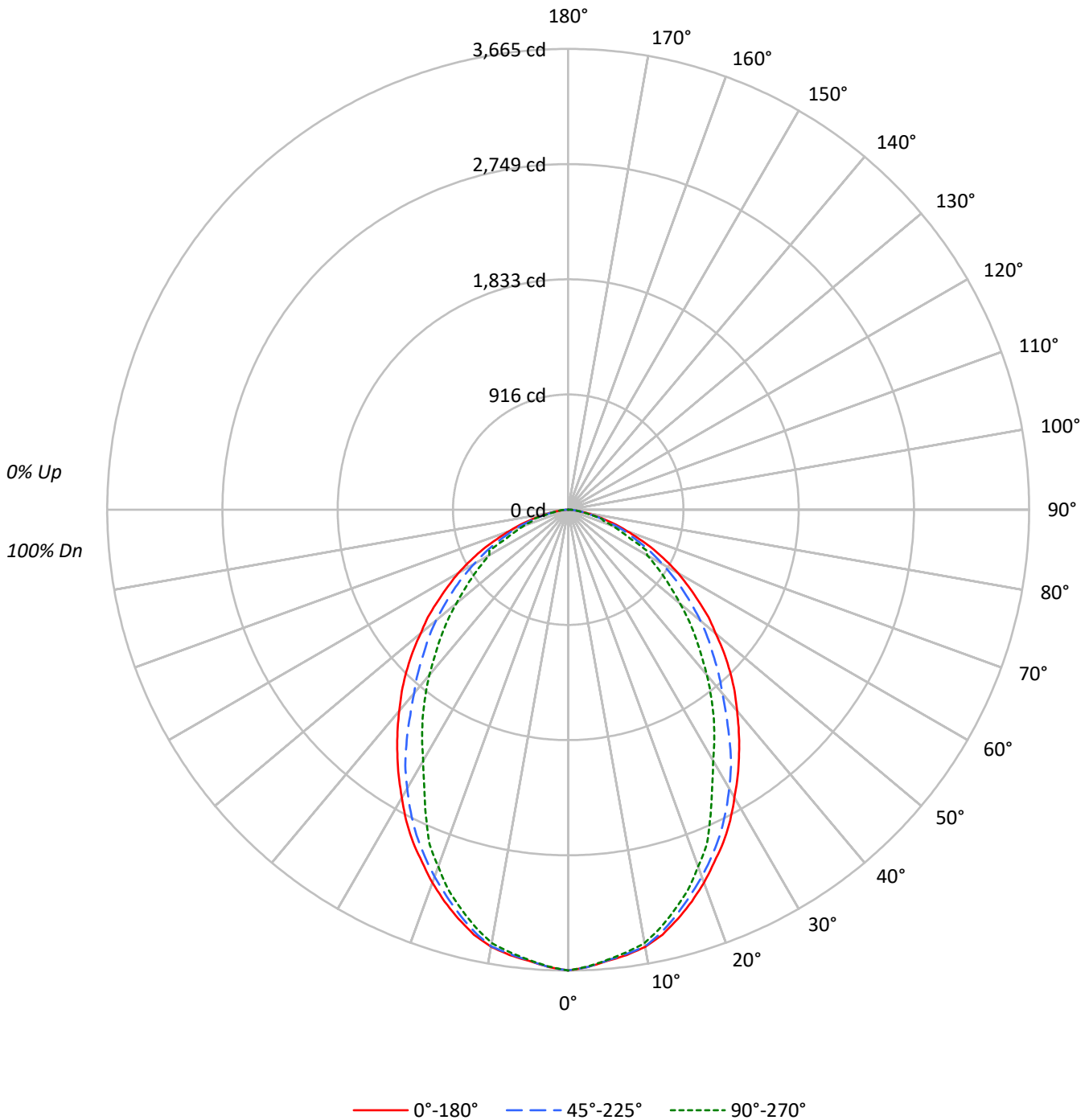
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562909

CATALOG NUMBER: FSR-24-4-LD4-2STD-35-UNV-82-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P562909

CATALOG NUMBER: FSR-24-4-LD4-2STD-35-UNV-82-96-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°	4931	4931	4931
5°	4864	4858	4853
10°	4822	4816	4782
15°	4692	4645	4580
20°	4520	4447	4326
25°	4334	4240	3975
30°	4108	3976	3581
35°	3890	3675	3313
40°	3669	3349	3014
45°	3459	3096	2725
50°	3202	2874	2430
55°	2962	2604	2177
60°	2714	2326	1950
65°	2388	2037	1727
70°	1967	1784	1467
75°	1564	1366	1432
80°	1051	985	919
85°	655	784	915

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3459 cd/sqm



TEST NUMBER: P562909

CATALOG NUMBER: FSR-24-4-LD4-2STD-35-UNV-82-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.2	4.7
10°-20°	936.3	13.0
20°-30°	1296.2	18.0
30°-40°	1382.2	19.2
40°-50°	1260.9	17.5
50°-60°	987.9	13.7
60°-70°	643.8	8.9
70°-80°	285.2	4.0
80°-90°	61.2	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°	2573.7	35.8
0°-40°	3955.9	55.0
0°-60°	6204.7	86.2
0°-90°	7195.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7195.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3665	3665	3665	3665	3665	
5°	3602	3597	3597	3593	3593	342
15°	3368	3368	3334	3301	3288	947
25°	2919	2902	2856	2754	2678	1340
35°	2368	2352	2237	2068	2017	1481
45°	1818	1780	1627	1491	1432	1400
55°	1263	1224	1110	979	928	1132
65°	750	708	640	652	542	739
75°	301	280	263	250	275	322
85°	42	47	51	55	59	59
90°	0	0	0	0	0	



TEST NUMBER: P562909

CATALOG NUMBER: FSR-24-4-LD4-2STD-35-UNV-82-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3665.0	3665.0	3665.0	3665.0	3665.0
2.5°	3639.6	3639.6	3639.6	3635.4	3635.4
5°	3601.5	3597.2	3597.2	3593.0	3593.0
7.5°	3571.8	3567.6	3563.3	3559.1	3550.6
10°	3529.5	3529.5	3525.2	3504.0	3499.8
12.5°	3461.7	3457.4	3440.5	3410.8	3402.3
15°	3368.4	3368.4	3334.5	3300.7	3287.9
17.5°	3266.8	3262.5	3220.1	3186.3	3169.3
20°	3156.6	3148.1	3105.7	3050.7	3021.0
22.5°	3033.7	3033.7	2982.9	2910.8	2881.2
25°	2919.3	2902.4	2855.8	2754.1	2677.8
27.5°	2788.0	2762.5	2711.7	2567.6	2478.7
30°	2643.9	2631.2	2559.2	2372.7	2304.9
32.5°	2508.3	2487.1	2410.9	2216.0	2160.9
35°	2368.5	2351.6	2237.2	2067.7	2016.8
37.5°	2228.7	2207.5	2063.4	1927.9	1864.3
40°	2088.9	2063.4	1906.7	1783.8	1716.0
42.5°	1957.5	1923.6	1771.1	1639.7	1563.5
45°	1817.7	1779.6	1627.0	1491.4	1432.1
47.5°	1677.9	1644.0	1504.1	1364.3	1296.5
50°	1529.6	1499.9	1372.8	1233.0	1160.9
52.5°	1406.7	1360.1	1237.2	1097.4	1038.1
55°	1262.6	1224.5	1110.1	978.8	927.9
57.5°	1131.3	1093.2	987.2	864.4	822.0
60°	1008.4	953.3	864.4	758.4	724.5
62.5°	872.8	830.5	754.2	665.2	707.6
65°	750.0	707.6	639.8	652.5	542.3
67.5°	614.4	593.2	533.9	474.5	457.6
70°	500.0	474.5	453.4	389.8	372.9
72.5°	398.3	372.9	343.2	309.3	296.6
75°	300.8	279.6	262.7	250.0	275.4
77.5°	207.6	199.1	186.4	173.7	169.5
80°	135.6	131.3	127.1	122.9	118.6
82.5°	80.5	80.5	80.5	80.5	80.5
85°	42.4	46.6	50.8	55.1	59.3
87.5°	25.4	25.4	29.7	33.9	38.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)