

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: P562419

Luminaire Tested: FSR-24-4-LD4-1STD-50-UNV-80-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562419
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-LD4-1STD-50-UNV-80-85-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3929.0 lumens
Efficiency: N/A
Efficacy: 118.0 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

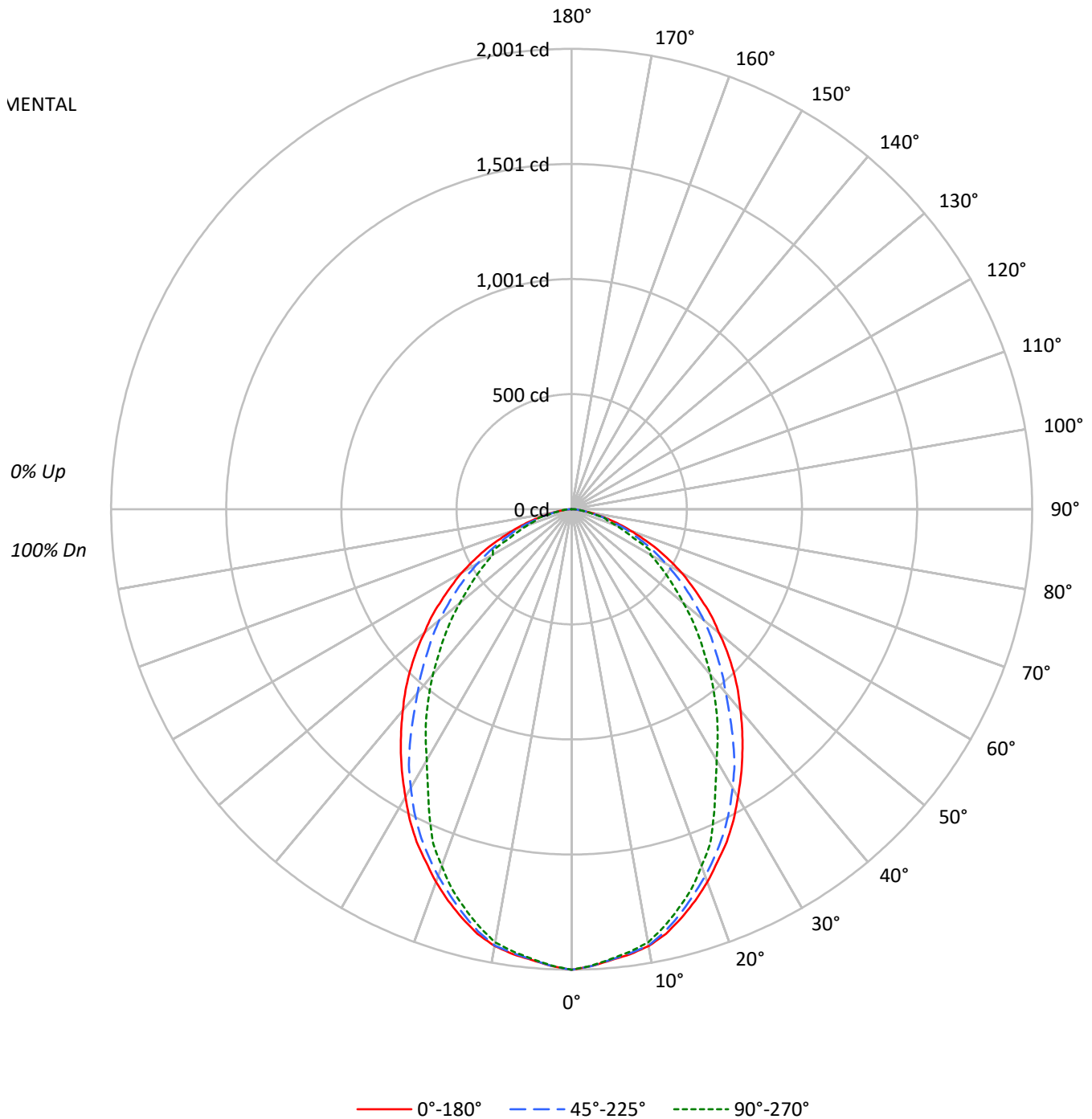
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562419

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-80-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P562419

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-80-85-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	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°	2693	2693	2693
5°	2656	2653	2650
10°	2633	2630	2611
15°	2562	2536	2501
20°	2468	2428	2362
25°	2367	2315	2171
30°	2243	2171	1956
35°	2124	2007	1809
40°	2004	1829	1646
45°	1889	1691	1488
50°	1748	1569	1327
55°	1617	1422	1189
60°	1482	1270	1065
65°	1304	1112	943
70°	1074	974	801
75°	854	746	782
80°	573	538	502
85°	357	429	500

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1889 cd/sqm



TEST NUMBER: P562419

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-80-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.3	4.7
10°-20°	511.3	13.0
20°-30°	707.8	18.0
30°-40°	754.8	19.2
40°-50°	688.6	17.5
50°-60°	539.4	13.7
60°-70°	351.6	8.9
70°-80°	155.8	4.0
80°-90°	33.5	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°	1405.4	35.8
0°-40°	2160.2	55.0
0°-60°	3388.2	86.2
0°-90°	3929.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3929.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2001	2001	2001	2001	2001	
5°	1967	1964	1964	1962	1962	187
15°	1839	1839	1821	1802	1796	517
25°	1594	1585	1560	1504	1462	732
35°	1293	1284	1222	1129	1101	809
45°	993	972	888	814	782	765
55°	690	669	606	534	507	618
65°	410	386	349	356	296	404
75°	164	153	144	136	150	176
85°	23	26	28	30	32	32
90°	0	0	0	0	0	



TEST NUMBER: P562419

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-80-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2001.4	2001.4	2001.4	2001.4	2001.4
2.5°	1987.5	1987.5	1987.5	1985.2	1985.2
5°	1966.7	1964.4	1964.4	1962.0	1962.0
7.5°	1950.5	1948.2	1945.9	1943.5	1938.9
10°	1927.3	1927.3	1925.0	1913.5	1911.1
12.5°	1890.3	1888.0	1878.8	1862.6	1857.9
15°	1839.4	1839.4	1820.9	1802.4	1795.5
17.5°	1783.9	1781.6	1758.4	1739.9	1730.7
20°	1723.7	1719.1	1696.0	1665.9	1649.7
22.5°	1656.6	1656.6	1628.9	1589.5	1573.3
25°	1594.2	1584.9	1559.5	1503.9	1462.3
27.5°	1522.4	1508.6	1480.8	1402.1	1353.5
30°	1443.8	1436.8	1397.5	1295.7	1258.7
32.5°	1369.7	1358.2	1316.5	1210.1	1180.0
35°	1293.4	1284.1	1221.7	1129.1	1101.3
37.5°	1217.0	1205.5	1126.8	1052.7	1018.0
40°	1140.7	1126.8	1041.2	974.1	937.1
42.5°	1068.9	1050.4	967.1	895.4	853.8
45°	992.6	971.8	888.5	814.4	782.0
47.5°	916.2	897.7	821.4	745.0	708.0
50°	835.3	819.1	749.6	673.3	634.0
52.5°	768.2	742.7	675.6	599.3	566.9
55°	689.5	668.7	606.2	534.5	506.7
57.5°	617.8	596.9	539.1	472.0	448.9
60°	550.7	520.6	472.0	414.2	395.6
62.5°	476.6	453.5	411.8	363.3	386.4
65°	409.5	386.4	349.4	356.3	296.2
67.5°	335.5	323.9	291.5	259.1	249.9
70°	273.0	259.1	247.6	212.9	203.6
72.5°	217.5	203.6	187.4	168.9	162.0
75°	164.3	152.7	143.5	136.5	150.4
77.5°	113.4	108.7	101.8	94.9	92.5
80°	74.0	71.7	69.4	67.1	64.8
82.5°	44.0	44.0	44.0	44.0	44.0
85°	23.1	25.5	27.8	30.1	32.4
87.5°	13.9	13.9	16.2	18.5	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)