

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: P590627

Luminaire Tested: FSR-24-2-LD4-3STD-35-UNV-81-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590627
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-LD4-3STD-35-UNV-81-96-EDD
Description: 2X2 FSR TROFFER WITH .156 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: 5512.0 lumens
Efficiency: N/A
Efficacy: 110.2 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

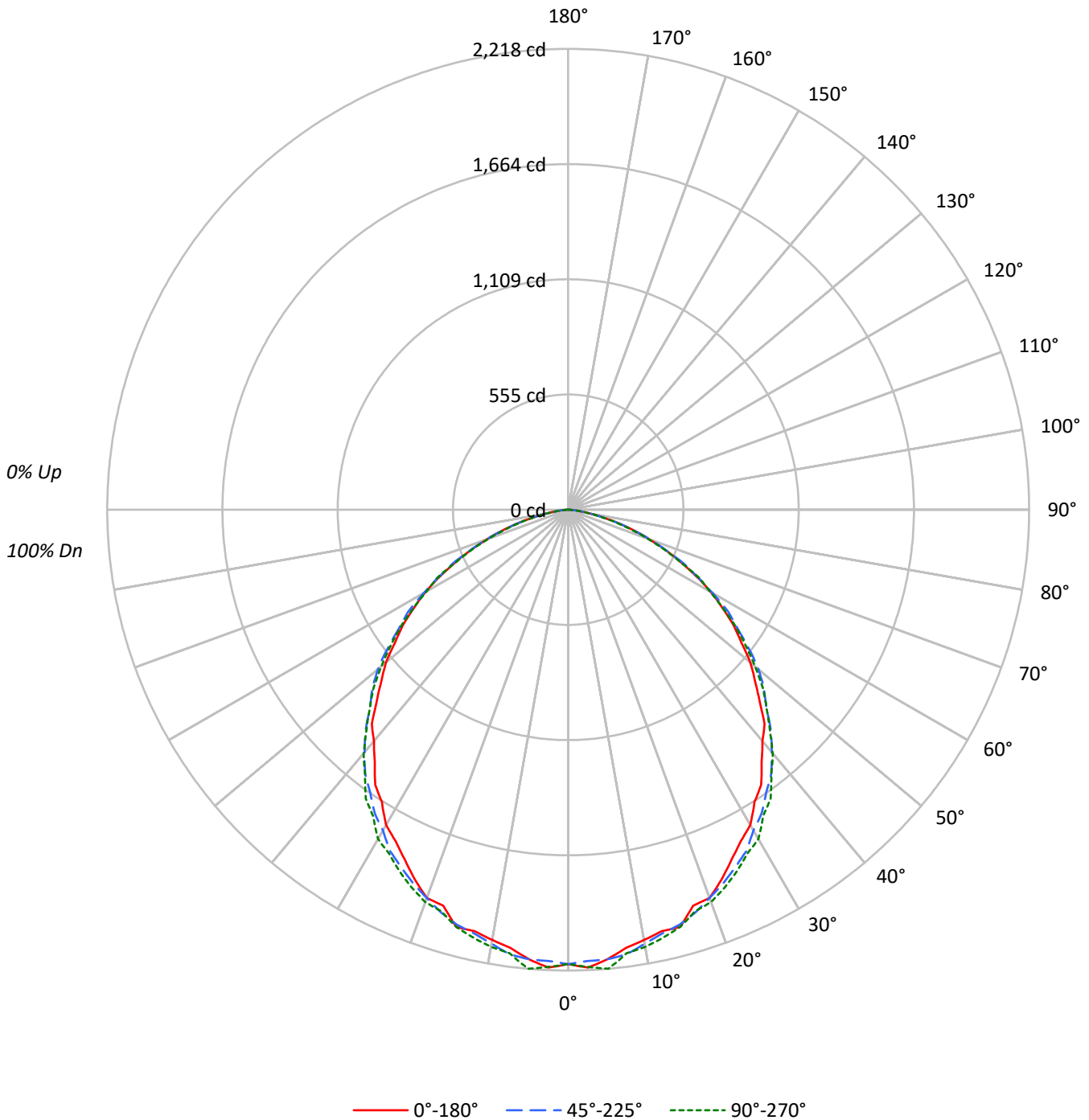
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	5885	5885	5885
5°	5866	5868	5992
10°	5747	5797	5838
15°	5792	5761	5793
20°	5694	5694	5755
25°	5519	5640	5702
30°	5444	5539	5687
35°	5315	5455	5577
40°	5108	5355	5378
45°	4954	5130	5138
50°	4791	5008	4912
55°	4565	4654	4621
60°	4269	4311	4234
65°	3806	3903	3780
70°	3266	3277	3186
75°	2587	2581	2481
80°	1733	1684	1619
85°	942	932	871

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5262 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.7	3.7
10°-20°	583.0	10.6
20°-30°	873.5	15.8
30°-40°	1035.3	18.8
40°-50°	1037.2	18.8
50°-60°	880.4	16.0
60°-70°	593.6	10.8
70°-80°	260.8	4.7
80°-90°	42.4	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°	1662.3	30.2
0°-40°	2697.6	48.9
0°-60°	4615.2	83.7
0°-90°	5512.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5512.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2187	2187	2187	2187	2187	
5°	2172	2166	2172	2166	2218	205
15°	2079	2055	2068	2079	2079	579
25°	1859	1869	1900	1924	1920	859
35°	1618	1623	1660	1699	1698	1005
45°	1302	1326	1348	1383	1350	1007
55°	973	967	992	985	985	866
65°	598	590	613	590	594	595
75°	249	244	248	231	239	267
85°	30	30	30	29	28	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2187.0	2187.0	2187.0	2187.0	2187.0
2.5°	2205.9	2189.3	2173.8	2191.8	2202.8
5°	2171.5	2166.4	2172.3	2165.8	2218.1
7.5°	2126.9	2146.4	2157.7	2150.6	2153.7
10°	2103.2	2096.4	2121.5	2139.0	2136.5
12.5°	2077.7	2087.9	2089.3	2108.2	2109.9
15°	2079.2	2055.2	2067.9	2078.6	2079.4
17.5°	1998.4	2024.4	2033.1	2057.7	2027.2
20°	1988.5	1969.6	1988.5	2013.6	2009.7
22.5°	1927.8	1906.6	1947.3	1969.6	1968.2
25°	1858.9	1869.1	1899.6	1924.4	1920.5
27.5°	1798.5	1810.3	1853.8	1888.0	1866.0
30°	1751.9	1745.9	1782.7	1813.2	1830.1
32.5°	1668.6	1690.0	1733.0	1763.2	1747.1
35°	1618.0	1622.8	1660.4	1698.8	1697.7
37.5°	1529.6	1552.0	1604.8	1615.5	1605.6
40°	1454.2	1476.6	1524.3	1535.9	1531.1
42.5°	1398.6	1402.6	1443.5	1456.8	1435.6
45°	1301.8	1326.0	1348.1	1382.8	1350.1
47.5°	1219.3	1230.6	1278.0	1287.4	1270.1
50°	1144.5	1148.4	1196.2	1184.6	1173.3
52.5°	1050.4	1067.1	1093.9	1091.7	1078.4
55°	973.1	966.6	992.0	985.2	984.9
57.5°	880.2	891.5	912.4	901.6	884.4
60°	793.2	793.5	801.1	789.0	786.7
62.5°	696.3	699.7	701.4	686.5	710.7
65°	597.8	589.9	613.0	589.6	593.6
67.5°	507.2	511.1	508.8	494.2	499.8
70°	415.1	420.2	416.5	399.8	404.9
72.5°	330.9	324.7	328.7	307.8	317.4
75°	248.8	243.7	248.2	230.7	238.6
77.5°	169.4	173.4	170.6	161.2	166.6
80°	111.8	108.7	108.7	103.4	104.5
82.5°	65.2	62.1	61.3	59.6	62.1
85°	30.5	29.6	30.2	29.4	28.2
87.5°	11.0	11.3	11.3	10.7	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)