

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: P590629

Luminaire Tested: FSR-24-2-LD4-3STD-35-UNV-82-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590629
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-82-84-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5444.0 lumens
Efficiency: N/A
Efficacy: 108.9 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

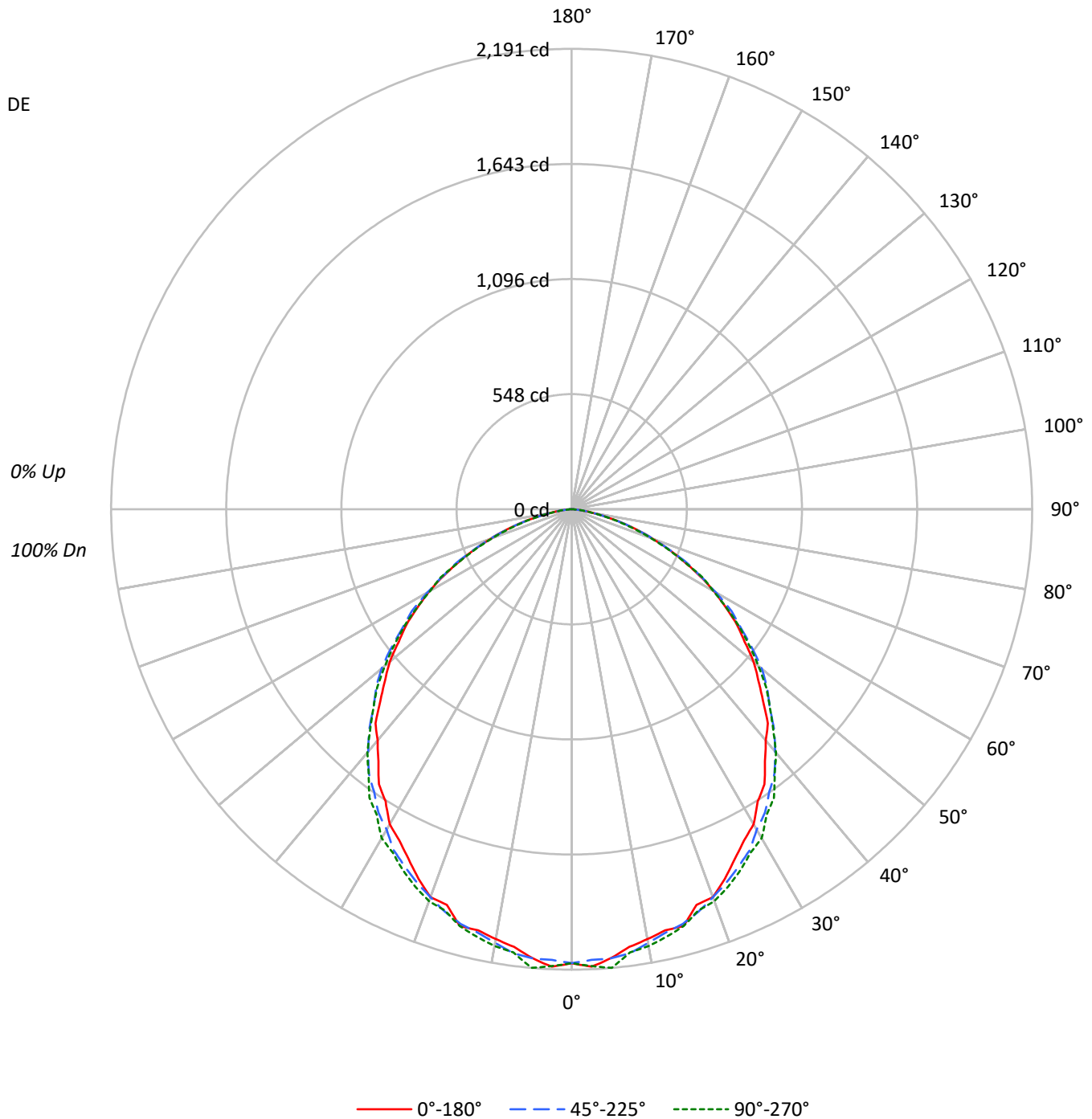
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5813	5813	5813
5°	5793	5796	5918
10°	5676	5725	5766
15°	5721	5690	5722
20°	5624	5624	5684
25°	5451	5570	5632
30°	5377	5471	5616
35°	5250	5387	5508
40°	5045	5289	5312
45°	4893	5067	5074
50°	4732	4946	4851
55°	4509	4597	4564
60°	4216	4258	4182
65°	3759	3855	3733
70°	3226	3237	3146
75°	2555	2548	2451
80°	1711	1664	1599
85°	929	920	861

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5197 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.2	3.7
10°-20°	575.8	10.6
20°-30°	862.7	15.8
30°-40°	1022.5	18.8
40°-50°	1024.4	18.8
50°-60°	869.6	16.0
60°-70°	586.3	10.8
70°-80°	257.6	4.7
80°-90°	41.9	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°	1641.8	30.2
0°-40°	2664.3	48.9
0°-60°	4558.3	83.7
0°-90°	5444.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5444.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2160	2160	2160	2160	2160	
5°	2145	2140	2146	2139	2191	202
15°	2054	2030	2042	2053	2054	572
25°	1836	1846	1876	1901	1897	849
35°	1598	1603	1640	1678	1677	992
45°	1286	1310	1331	1366	1333	995
55°	961	955	980	973	973	855
65°	590	583	606	582	586	587
75°	246	241	245	228	236	263
85°	30	29	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°	2160.0	2160.0	2160.0	2160.0	2160.0
2.5°	2178.7	2162.3	2146.9	2164.8	2175.7
5°	2144.7	2139.7	2145.5	2139.1	2190.7
7.5°	2100.6	2119.9	2131.0	2124.1	2127.1
10°	2077.2	2070.5	2095.3	2112.6	2110.1
12.5°	2052.1	2062.1	2063.5	2082.2	2083.9
15°	2053.5	2029.8	2042.3	2052.9	2053.8
17.5°	1973.7	1999.4	2008.0	2032.3	2002.2
20°	1964.0	1945.3	1964.0	1988.8	1984.9
22.5°	1904.0	1883.1	1923.3	1945.3	1943.9
25°	1836.0	1846.0	1876.1	1900.7	1896.8
27.5°	1776.3	1788.0	1830.9	1864.7	1842.9
30°	1730.3	1724.4	1760.7	1790.8	1807.5
32.5°	1648.0	1669.2	1711.6	1741.4	1725.5
35°	1598.1	1602.8	1639.9	1677.8	1676.7
37.5°	1510.8	1532.8	1585.0	1595.6	1585.8
40°	1436.3	1458.3	1505.5	1516.9	1512.2
42.5°	1381.4	1385.3	1425.7	1438.8	1417.9
45°	1285.7	1309.7	1331.4	1365.7	1333.4
47.5°	1204.3	1215.4	1262.3	1271.5	1254.5
50°	1130.4	1134.3	1181.4	1170.0	1158.8
52.5°	1037.5	1053.9	1080.4	1078.2	1065.1
55°	961.1	954.7	979.8	973.1	972.8
57.5°	869.3	880.5	901.1	890.5	873.5
60°	783.4	783.7	791.2	779.2	777.0
62.5°	687.8	691.1	692.8	678.0	702.0
65°	590.4	582.6	605.5	582.3	586.2
67.5°	500.9	504.8	502.6	488.1	493.6
70°	410.0	415.0	411.4	394.9	399.9
72.5°	326.9	320.7	324.6	304.0	313.5
75°	245.7	240.7	245.1	227.9	235.7
77.5°	167.3	171.2	168.5	159.2	164.5
80°	110.4	107.4	107.4	102.1	103.2
82.5°	64.4	61.4	60.5	58.8	61.4
85°	30.1	29.3	29.8	29.0	27.9
87.5°	10.9	11.2	11.2	10.6	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)