

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: P590614

Luminaire Tested: FSR-24-2-LD4-3STD-35-UNV-80-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590614
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-80-85-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5737.0 lumens
Efficiency: N/A
Efficacy: 114.7 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

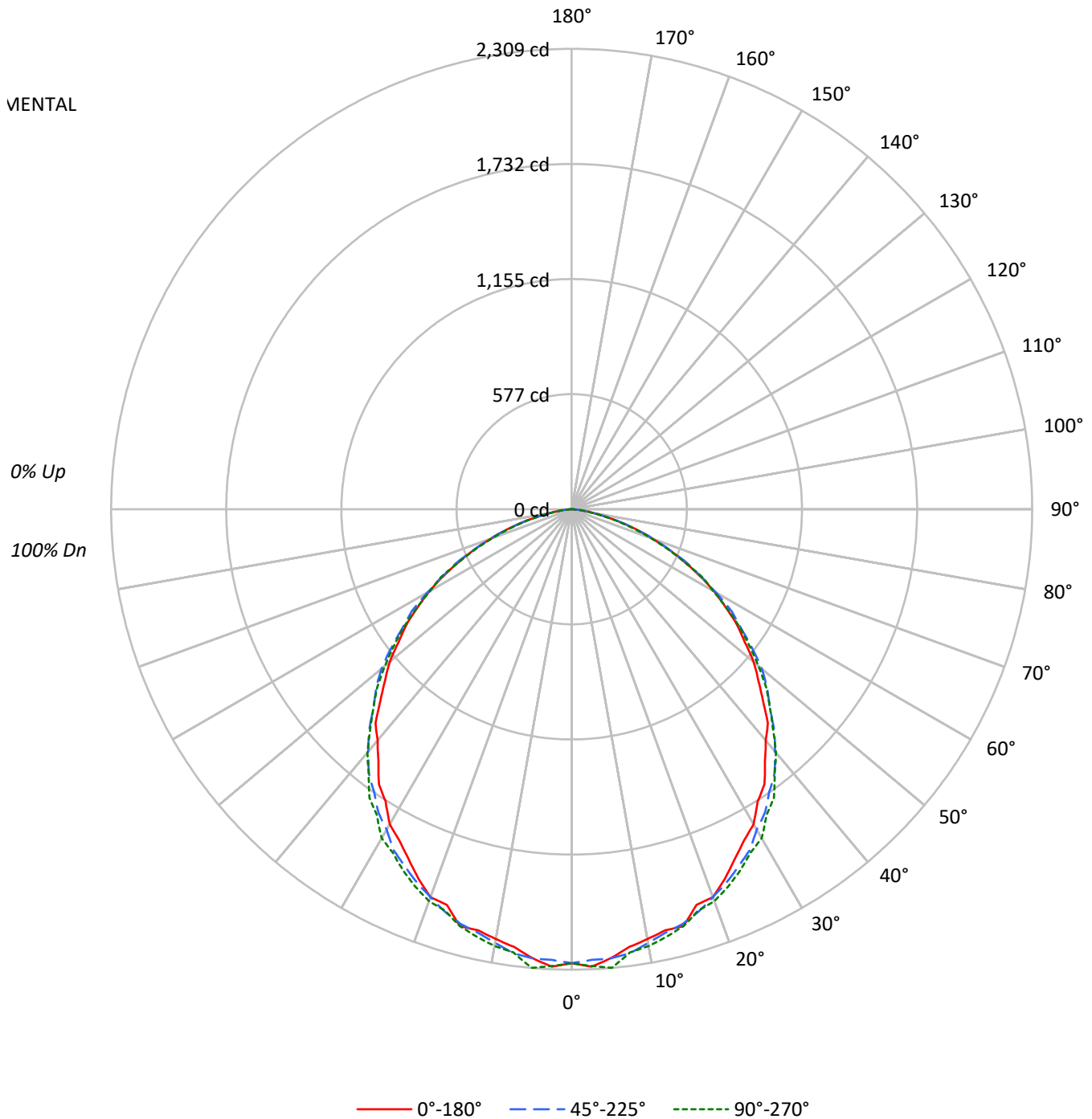
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6125	6125	6125
5°	6105	6108	6236
10°	5981	6034	6076
15°	6029	5996	6030
20°	5927	5927	5990
25°	5745	5870	5935
30°	5666	5765	5919
35°	5532	5677	5805
40°	5317	5573	5598
45°	5156	5340	5348
50°	4987	5212	5112
55°	4752	4844	4809
60°	4443	4487	4407
65°	3962	4063	3934
70°	3399	3411	3316
75°	2692	2686	2582
80°	1804	1754	1684
85°	979	969	908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5477 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.1	3.7
10°-20°	606.8	10.6
20°-30°	909.2	15.8
30°-40°	1077.6	18.8
40°-50°	1079.6	18.8
50°-60°	916.4	16.0
60°-70°	617.8	10.8
70°-80°	271.5	4.7
80°-90°	44.1	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°	1730.1	30.2
0°-40°	2807.7	48.9
0°-60°	4803.6	83.7
0°-90°	5737.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5737.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2276	2276	2276	2276	2276	
5°	2260	2255	2261	2254	2309	213
15°	2164	2139	2152	2163	2164	603
25°	1935	1945	1977	2003	1999	894
35°	1684	1689	1728	1768	1767	1046
45°	1355	1380	1403	1439	1405	1048
55°	1013	1006	1032	1025	1025	901
65°	622	614	638	614	618	619
75°	259	254	258	240	248	277
85°	32	31	31	31	29	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2276.3	2276.3	2276.3	2276.3	2276.3
2.5°	2296.0	2278.6	2262.5	2281.3	2292.8
5°	2260.1	2254.8	2261.0	2254.3	2308.6
7.5°	2213.7	2234.0	2245.7	2238.4	2241.6
10°	2189.0	2182.0	2208.1	2226.3	2223.7
12.5°	2162.6	2173.1	2174.6	2194.3	2196.1
15°	2164.0	2139.0	2152.3	2163.4	2164.3
17.5°	2080.0	2107.0	2116.1	2141.7	2109.9
20°	2069.7	2050.0	2069.7	2095.8	2091.7
22.5°	2006.5	1984.4	2026.8	2050.0	2048.5
25°	1934.8	1945.4	1977.1	2003.0	1998.9
27.5°	1871.9	1884.2	1929.5	1965.1	1942.1
30°	1823.4	1817.2	1855.4	1887.2	1904.8
32.5°	1736.7	1759.0	1803.7	1835.1	1818.4
35°	1684.1	1689.1	1728.2	1768.1	1767.0
37.5°	1592.1	1615.3	1670.3	1681.4	1671.1
40°	1513.6	1536.8	1586.5	1598.6	1593.6
42.5°	1455.7	1459.8	1502.4	1516.3	1494.2
45°	1354.9	1380.2	1403.1	1439.3	1405.2
47.5°	1269.1	1280.8	1330.2	1339.9	1322.0
50°	1191.2	1195.3	1245.0	1232.9	1221.2
52.5°	1093.3	1110.7	1138.6	1136.2	1122.4
55°	1012.8	1006.0	1032.5	1025.4	1025.1
57.5°	916.1	927.9	949.6	938.4	920.5
60°	825.6	825.9	833.8	821.2	818.8
62.5°	724.8	728.3	730.1	714.5	739.8
65°	622.2	614.0	638.1	613.7	617.8
67.5°	527.9	532.0	529.6	514.3	520.2
70°	432.0	437.3	433.5	416.2	421.5
72.5°	344.5	338.0	342.1	320.4	330.3
75°	258.9	253.6	258.3	240.1	248.3
77.5°	176.3	180.5	177.5	167.8	173.4
80°	116.4	113.2	113.2	107.6	108.7
82.5°	67.9	64.7	63.8	62.0	64.7
85°	31.7	30.9	31.4	30.6	29.4
87.5°	11.5	11.8	11.8	11.2	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)