

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: P590486

Luminaire Tested: FSR-24-2-LD4-3HI-50-UNV-80-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590486
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-LD4-3HI-50-UNV-80-85-EDD
Description: 2X2 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

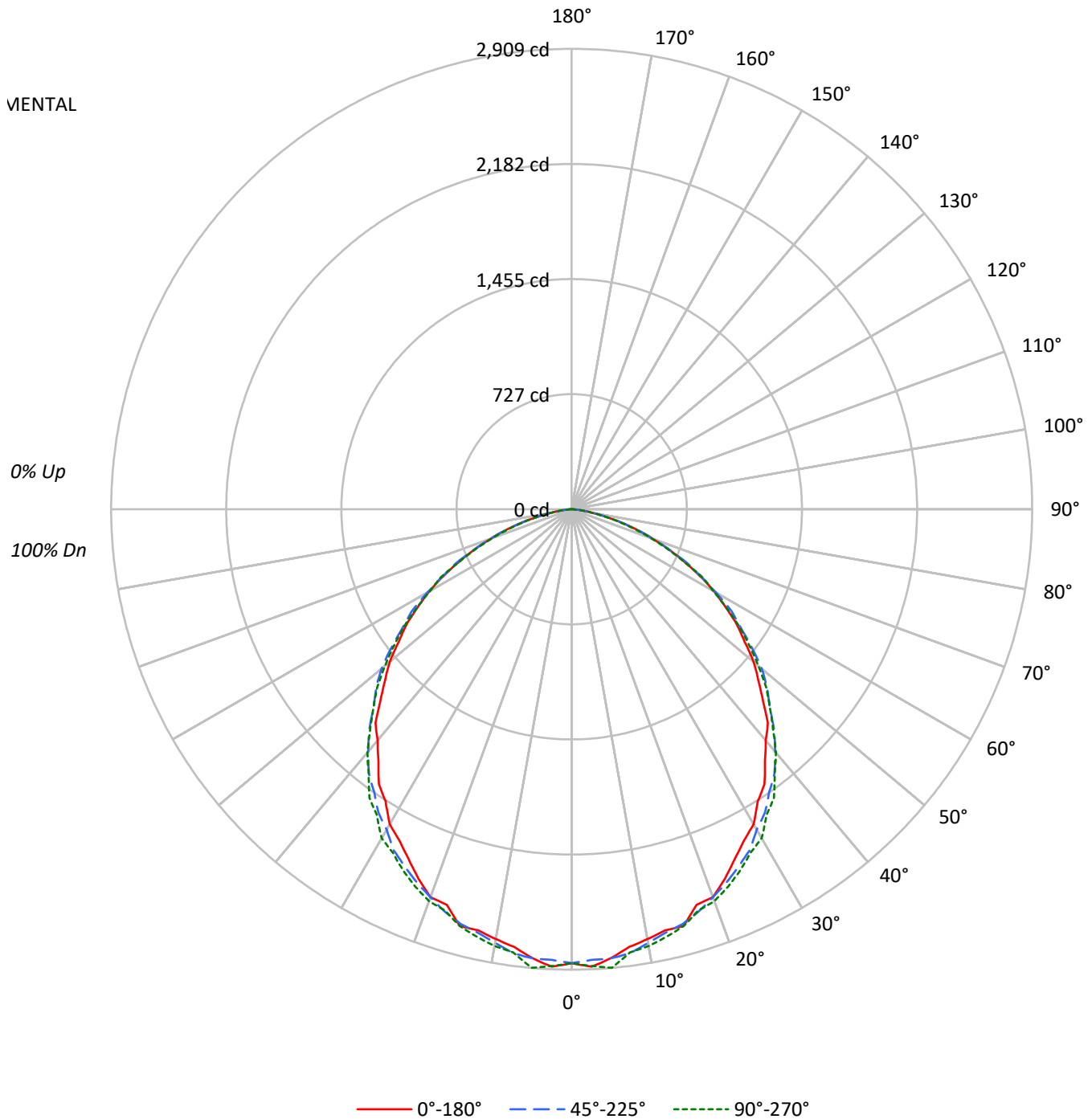
Lumens per Lamp: N/A
Luminaire Lumens: 7228.0 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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									
RC	80									70									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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86														
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73														
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62														
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53														
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46														
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41														
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36														
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32														
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29														
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7717	7717	7717
5°	7692	7695	7857
10°	7536	7602	7655
15°	7595	7554	7597
20°	7467	7467	7547
25°	7238	7396	7477
30°	7138	7264	7457
35°	6970	7153	7313
40°	6699	7021	7053
45°	6496	6728	6737
50°	6283	6566	6441
55°	5986	6103	6060
60°	5598	5654	5552
65°	4991	5119	4956
70°	4282	4297	4178
75°	3392	3384	3253
80°	2272	2210	2123
85°	1235	1223	1142

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6901 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.8	3.7
10°-20°	764.6	10.6
20°-30°	1145.5	15.8
30°-40°	1357.6	18.8
40°-50°	1360.1	18.8
50°-60°	1154.5	16.0
60°-70°	778.4	10.8
70°-80°	342.0	4.7
80°-90°	55.6	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°	2179.8	30.2
0°-40°	3537.4	48.9
0°-60°	6052.0	83.7
0°-90°	7228.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7228.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2868	2868	2868	2868	2868	
5°	2848	2841	2849	2840	2909	268
15°	2726	2695	2712	2726	2727	760
25°	2438	2451	2491	2524	2518	1127
35°	2122	2128	2177	2228	2226	1317
45°	1707	1739	1768	1813	1770	1320
55°	1276	1268	1301	1292	1292	1135
65°	784	774	804	773	778	780
75°	326	320	326	302	313	350
85°	40	39	40	38	37	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2867.9	2867.9	2867.9	2867.9	2867.9
2.5°	2892.7	2870.9	2850.5	2874.2	2888.6
5°	2847.5	2840.9	2848.6	2840.1	2908.6
7.5°	2789.0	2814.6	2829.4	2820.1	2824.2
10°	2757.9	2749.0	2782.0	2804.9	2801.6
12.5°	2724.6	2737.9	2739.8	2764.6	2766.8
15°	2726.4	2695.0	2711.6	2725.7	2726.8
17.5°	2620.5	2654.6	2666.1	2698.3	2658.3
20°	2607.6	2582.8	2607.6	2640.5	2635.3
22.5°	2528.0	2500.2	2553.5	2582.8	2580.9
25°	2437.6	2450.9	2490.9	2523.5	2518.3
27.5°	2358.4	2373.9	2430.9	2475.8	2446.9
30°	2297.3	2289.5	2337.6	2377.6	2399.8
32.5°	2188.0	2216.2	2272.5	2312.1	2291.0
35°	2121.8	2128.1	2177.3	2227.7	2226.2
37.5°	2005.9	2035.1	2104.4	2118.4	2105.5
40°	1907.0	1936.2	1998.8	2014.0	2007.7
42.5°	1834.0	1839.2	1892.9	1910.3	1882.5
45°	1707.0	1738.9	1767.8	1813.3	1770.4
47.5°	1598.9	1613.7	1675.9	1688.1	1665.6
50°	1500.8	1506.0	1568.5	1553.4	1538.6
52.5°	1377.5	1399.3	1434.5	1431.5	1414.1
55°	1276.0	1267.5	1300.8	1291.9	1291.6
57.5°	1154.2	1169.0	1196.4	1182.3	1159.7
60°	1040.1	1040.5	1050.5	1034.6	1031.6
62.5°	913.1	917.6	919.8	900.2	932.0
65°	783.9	773.5	803.9	773.2	778.3
67.5°	665.0	670.2	667.3	648.0	655.4
70°	544.3	551.0	546.2	524.3	531.0
72.5°	434.0	425.8	431.0	403.6	416.2
75°	326.2	319.6	325.5	302.5	312.9
77.5°	222.2	227.4	223.7	211.4	218.5
80°	146.6	142.6	142.6	135.5	137.0
82.5°	85.5	81.5	80.4	78.1	81.5
85°	40.0	38.9	39.6	38.5	37.0
87.5°	14.4	14.8	14.8	14.1	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)