

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: P590266

Luminaire Tested: FSR-24-2-LD4-2LO-40-UNV-80-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590266
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-LD4-2LO-40-UNV-80-94-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2950.0 lumens
Efficiency: N/A
Efficacy: 126.1 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

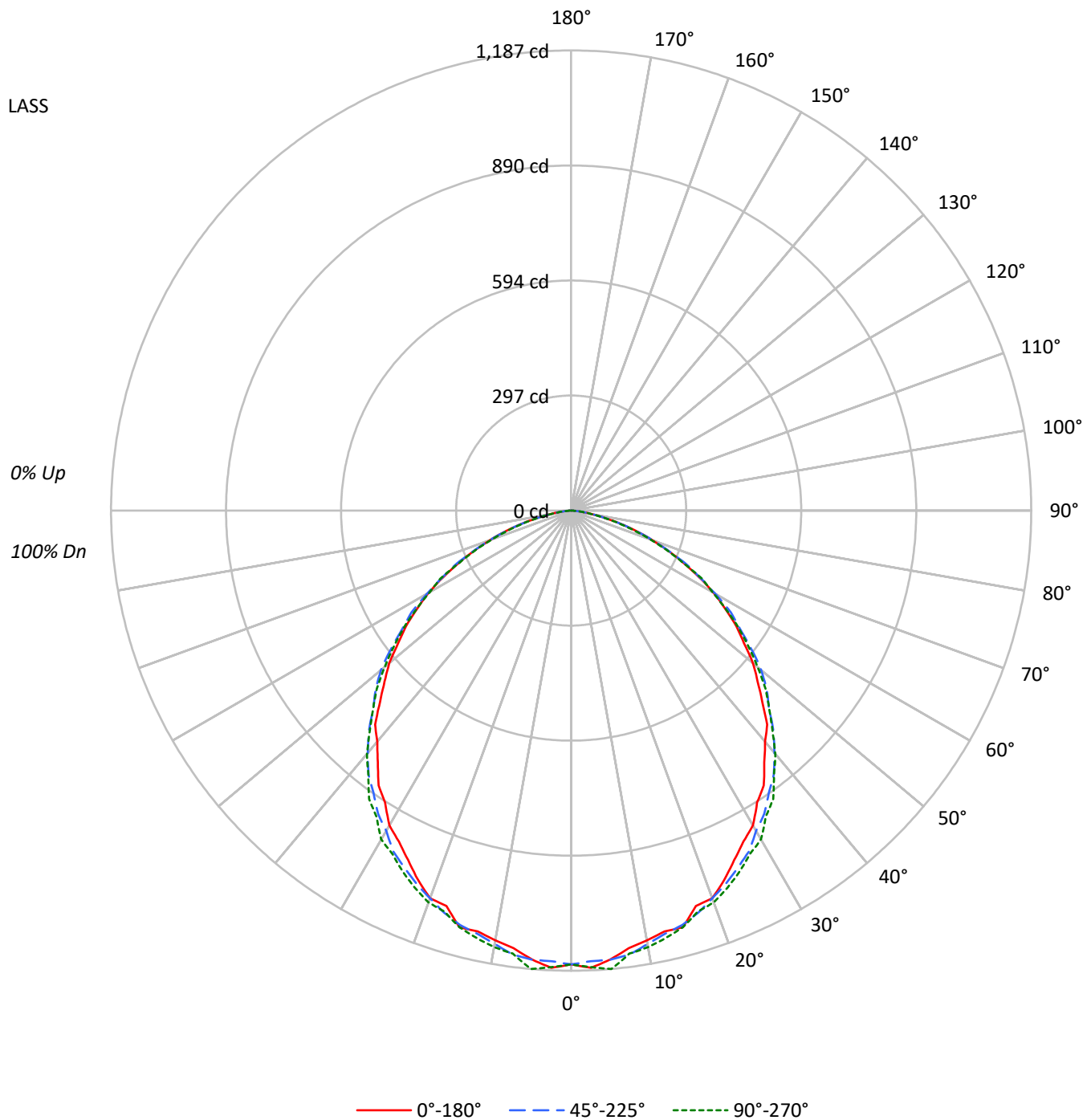
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3150	3150	3150
5°	3139	3140	3207
10°	3076	3102	3124
15°	3100	3083	3100
20°	3048	3048	3080
25°	2954	3018	3052
30°	2913	2965	3044
35°	2845	2919	2985
40°	2734	2866	2878
45°	2651	2746	2750
50°	2564	2680	2629
55°	2443	2491	2473
60°	2285	2307	2266
65°	2037	2089	2023
70°	1748	1754	1705
75°	1384	1381	1328
80°	927	902	866
85°	503	500	466

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2817 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.1	3.7
10°-20°	312.0	10.6
20°-30°	467.5	15.8
30°-40°	554.1	18.8
40°-50°	555.1	18.8
50°-60°	471.2	16.0
60°-70°	317.7	10.8
70°-80°	139.6	4.7
80°-90°	22.7	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°	889.6	30.2
0°-40°	1443.7	48.9
0°-60°	2470.1	83.7
0°-90°	2950.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2950.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1162	1160	1163	1159	1187	110
15°	1113	1100	1107	1112	1113	310
25°	995	1000	1017	1030	1028	460
35°	866	868	889	909	909	538
45°	697	710	722	740	722	539
55°	521	517	531	527	527	463
65°	320	316	328	316	318	318
75°	133	130	133	124	128	143
85°	16	16	16	16	15	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1170.5	1170.5	1170.5	1170.5	1170.5
2.5°	1180.6	1171.7	1163.4	1173.1	1178.9
5°	1162.2	1159.5	1162.6	1159.2	1187.1
7.5°	1138.3	1148.7	1154.8	1151.0	1152.7
10°	1125.6	1122.0	1135.4	1144.8	1143.4
12.5°	1112.0	1117.4	1118.2	1128.3	1129.2
15°	1112.8	1099.9	1106.7	1112.5	1112.9
17.5°	1069.5	1083.4	1088.1	1101.3	1084.9
20°	1064.2	1054.1	1064.2	1077.7	1075.6
22.5°	1031.8	1020.4	1042.2	1054.1	1053.4
25°	994.9	1000.3	1016.6	1029.9	1027.8
27.5°	962.5	968.9	992.2	1010.4	998.7
30°	937.6	934.4	954.1	970.4	979.5
32.5°	893.0	904.5	927.5	943.6	935.0
35°	866.0	868.5	888.6	909.2	908.6
37.5°	818.7	830.6	858.9	864.6	859.3
40°	778.3	790.2	815.8	822.0	819.4
42.5°	748.5	750.7	772.6	779.7	768.3
45°	696.7	709.7	721.5	740.1	722.5
47.5°	652.6	658.6	684.0	689.0	679.8
50°	612.5	614.6	640.2	634.0	627.9
52.5°	562.2	571.1	585.5	584.3	577.2
55°	520.8	517.3	530.9	527.3	527.1
57.5°	471.1	477.1	488.3	482.6	473.3
60°	424.5	424.7	428.7	422.3	421.0
62.5°	372.7	374.5	375.4	367.4	380.4
65°	319.9	315.7	328.1	315.6	317.7
67.5°	271.4	273.5	272.3	264.5	267.5
70°	222.2	224.9	222.9	214.0	216.7
72.5°	177.1	173.8	175.9	164.7	169.9
75°	133.1	130.4	132.8	123.5	127.7
77.5°	90.7	92.8	91.3	86.3	89.2
80°	59.8	58.2	58.2	55.3	55.9
82.5°	34.9	33.2	32.8	31.9	33.2
85°	16.3	15.9	16.2	15.7	15.1
87.5°	5.9	6.0	6.0	5.7	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)