

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: P590261

Luminaire Tested: FSR-24-2-LD4-2LO-40-UNV-80-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590261
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-80-84-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

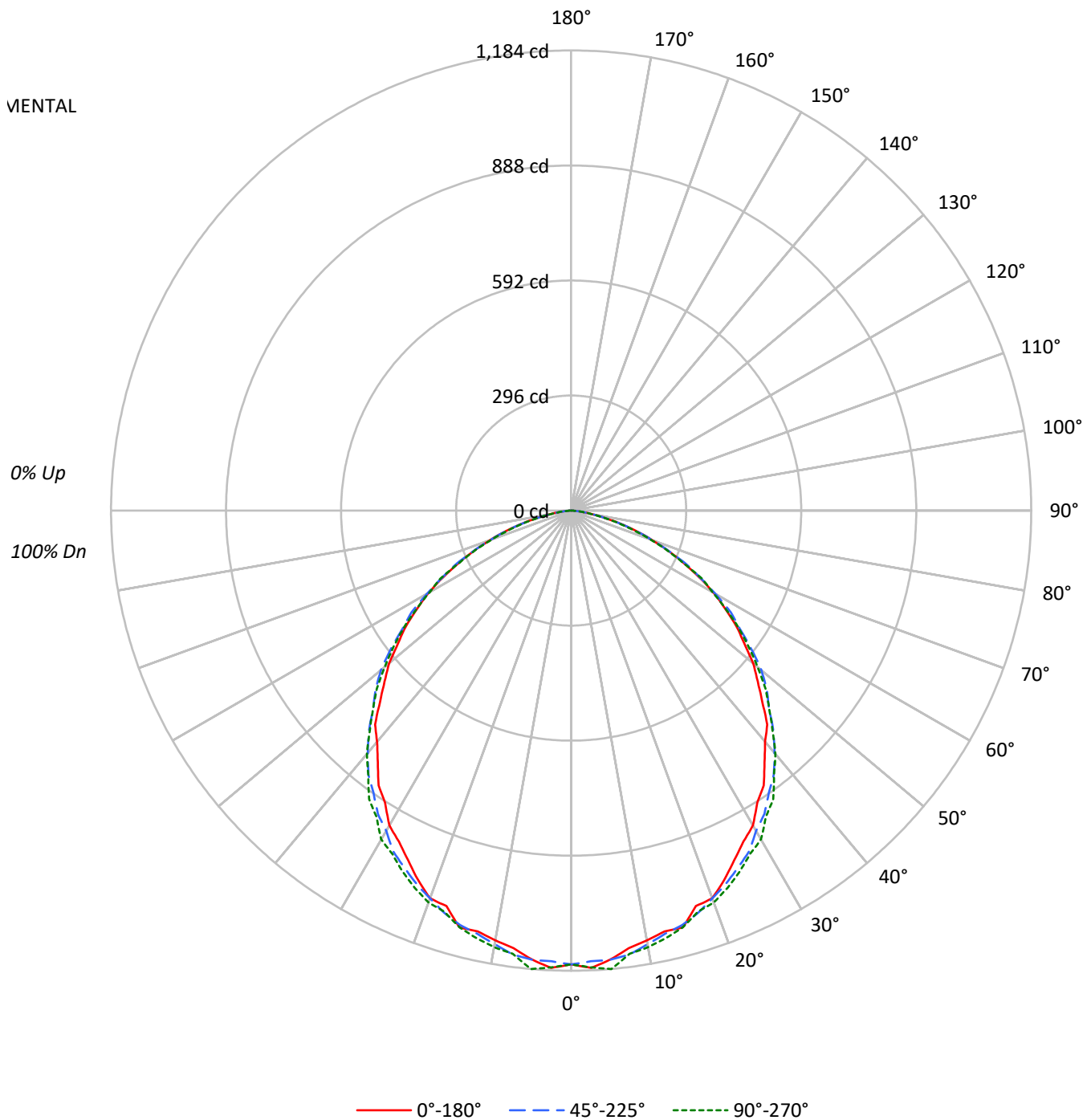
Lumens per Lamp: N/A
Luminaire Lumens: 2943.0 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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				
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°	3142	3142	3142
5°	3132	3133	3199
10°	3068	3095	3117
15°	3093	3076	3093
20°	3040	3040	3073
25°	2947	3011	3045
30°	2907	2958	3036
35°	2838	2912	2978
40°	2728	2859	2872
45°	2645	2739	2743
50°	2558	2674	2622
55°	2438	2485	2467
60°	2279	2302	2260
65°	2032	2084	2018
70°	1744	1750	1701
75°	1381	1378	1325
80°	925	899	865
85°	503	497	466

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2810 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.8	3.7
10°-20°	311.3	10.6
20°-30°	466.4	15.8
30°-40°	552.8	18.8
40°-50°	553.8	18.8
50°-60°	470.1	16.0
60°-70°	316.9	10.8
70°-80°	139.3	4.7
80°-90°	22.6	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°	887.5	30.2
0°-40°	1440.3	48.9
0°-60°	2464.2	83.7
0°-90°	2943.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2943.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1159	1157	1160	1156	1184	109
15°	1110	1097	1104	1110	1110	309
25°	992	998	1014	1028	1025	459
35°	864	866	886	907	906	536
45°	695	708	720	738	721	538
55°	520	516	530	526	526	462
65°	319	315	327	315	317	317
75°	133	130	132	123	127	142
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°	1167.7	1167.7	1167.7	1167.7	1167.7
2.5°	1177.8	1168.9	1160.6	1170.3	1176.2
5°	1159.4	1156.7	1159.9	1156.4	1184.3
7.5°	1135.6	1146.0	1152.0	1148.3	1149.9
10°	1122.9	1119.3	1132.7	1142.1	1140.7
12.5°	1109.4	1114.8	1115.5	1125.6	1126.5
15°	1110.1	1097.3	1104.1	1109.8	1110.3
17.5°	1067.0	1080.9	1085.5	1098.7	1082.4
20°	1061.7	1051.6	1061.7	1075.1	1073.0
22.5°	1029.3	1018.0	1039.7	1051.6	1050.9
25°	992.5	997.9	1014.2	1027.5	1025.4
27.5°	960.2	966.6	989.8	1008.0	996.3
30°	935.4	932.2	951.8	968.1	977.1
32.5°	890.9	902.4	925.3	941.4	932.8
35°	863.9	866.5	886.5	907.0	906.4
37.5°	816.7	828.6	856.8	862.6	857.3
40°	776.5	788.4	813.9	820.0	817.5
42.5°	746.8	748.9	770.7	777.8	766.5
45°	695.0	708.0	719.8	738.3	720.8
47.5°	651.0	657.1	682.4	687.4	678.2
50°	611.1	613.2	638.7	632.5	626.4
52.5°	560.9	569.8	584.1	582.9	575.8
55°	519.6	516.1	529.7	526.0	525.9
57.5°	469.9	476.0	487.1	481.4	472.2
60°	423.5	423.7	427.7	421.2	420.0
62.5°	371.8	373.6	374.5	366.5	379.5
65°	319.2	315.0	327.3	314.8	316.9
67.5°	270.8	272.9	271.7	263.8	266.9
70°	221.6	224.3	222.4	213.5	216.2
72.5°	176.7	173.4	175.5	164.3	169.5
75°	132.8	130.1	132.5	123.2	127.4
77.5°	90.5	92.6	91.1	86.1	89.0
80°	59.7	58.0	58.0	55.2	55.8
82.5°	34.8	33.2	32.7	31.8	33.2
85°	16.3	15.8	16.1	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)