

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: P559920

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559920
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-1LO-50-UNV-80-84-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

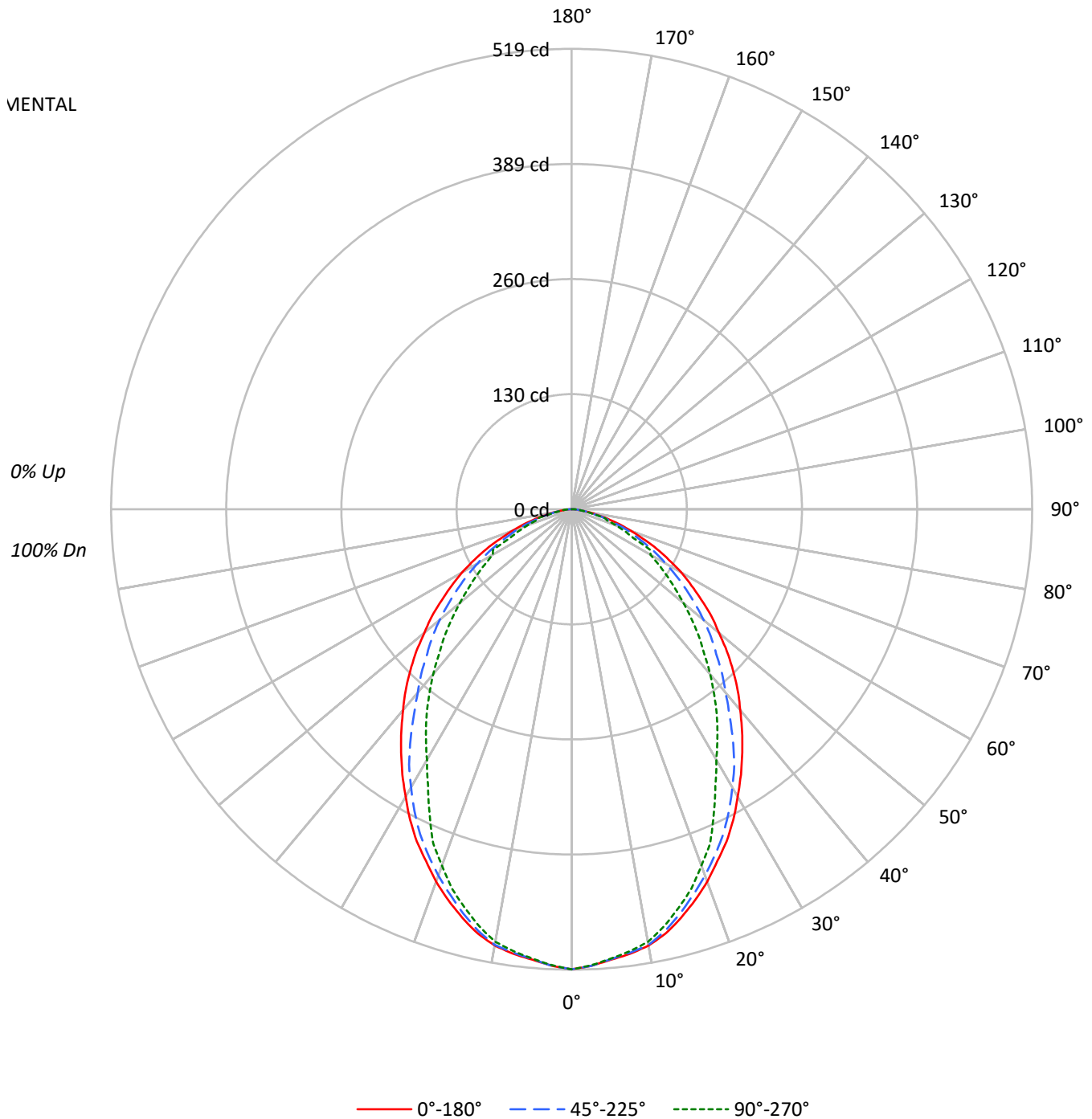
Lumens per Lamp: N/A
Luminaire Lumens: 1018.0 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75					75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65					65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56					56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44					44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40					40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33					33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2791	2791	2791
5°	2753	2750	2747
10°	2729	2726	2706
15°	2656	2629	2592
20°	2558	2517	2448
25°	2453	2400	2250
30°	2325	2250	2027
35°	2202	2079	1875
40°	2076	1896	1706
45°	1958	1752	1542
50°	1812	1626	1376
55°	1676	1474	1232
60°	1536	1316	1103
65°	1351	1152	977
70°	1113	1009	831
75°	886	774	811
80°	595	558	521
85°	371	445	519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1958 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.3	4.7
10°-20°	132.5	13.0
20°-30°	183.4	18.0
30°-40°	195.6	19.2
40°-50°	178.4	17.5
50°-60°	139.8	13.7
60°-70°	91.1	8.9
70°-80°	40.4	4.0
80°-90°	8.7	0.9
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°	364.2	35.8
0°-40°	559.7	55.0
0°-60°	877.9	86.2
0°-90°	1018.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1018.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	519	519	519	519	519	
5°	510	509	509	508	508	48
15°	477	477	472	467	465	134
25°	413	411	404	390	379	190
35°	335	333	316	292	285	209
45°	257	252	230	211	203	198
55°	179	173	157	138	131	160
65°	106	100	90	92	77	105
75°	43	40	37	35	39	46
85°	6	7	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	518.6	518.6	518.6	518.6	518.6
2.5°	515.0	515.0	515.0	514.4	514.4
5°	509.6	509.0	509.0	508.4	508.4
7.5°	505.4	504.8	504.2	503.6	502.4
10°	499.4	499.4	498.8	495.8	495.2
12.5°	489.8	489.2	486.8	482.6	481.4
15°	476.6	476.6	471.8	467.0	465.2
17.5°	462.2	461.6	455.6	450.8	448.4
20°	446.6	445.4	439.4	431.6	427.4
22.5°	429.2	429.2	422.0	411.8	407.7
25°	413.0	410.6	404.1	389.7	378.9
27.5°	394.5	390.9	383.7	363.3	350.7
30°	374.1	372.3	362.1	335.7	326.1
32.5°	354.9	351.9	341.1	313.5	305.7
35°	335.1	332.7	316.5	292.5	285.4
37.5°	315.3	312.3	291.9	272.8	263.8
40°	295.5	291.9	269.8	252.4	242.8
42.5°	277.0	272.2	250.6	232.0	221.2
45°	257.2	251.8	230.2	211.0	202.6
47.5°	237.4	232.6	212.8	193.0	183.4
50°	216.4	212.2	194.2	174.5	164.3
52.5°	199.0	192.4	175.0	155.3	146.9
55°	178.6	173.3	157.1	138.5	131.3
57.5°	160.1	154.7	139.7	122.3	116.3
60°	142.7	134.9	122.3	107.3	102.5
62.5°	123.5	117.5	106.7	94.1	100.1
65°	106.1	100.1	90.5	92.3	76.7
67.5°	86.9	83.9	75.5	67.1	64.7
70°	70.7	67.1	64.1	55.2	52.8
72.5°	56.4	52.8	48.6	43.8	42.0
75°	42.6	39.6	37.2	35.4	39.0
77.5°	29.4	28.2	26.4	24.6	24.0
80°	19.2	18.6	18.0	17.4	16.8
82.5°	11.4	11.4	11.4	11.4	11.4
85°	6.0	6.6	7.2	7.8	8.4
87.5°	3.6	3.6	4.2	4.8	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)