

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: P559095

Luminaire Tested: FSR-12-1-LD4-2HI-40-UNV-80-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559095
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-12-1-LD4-2HI-40-UNV-80-87-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1828.0 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

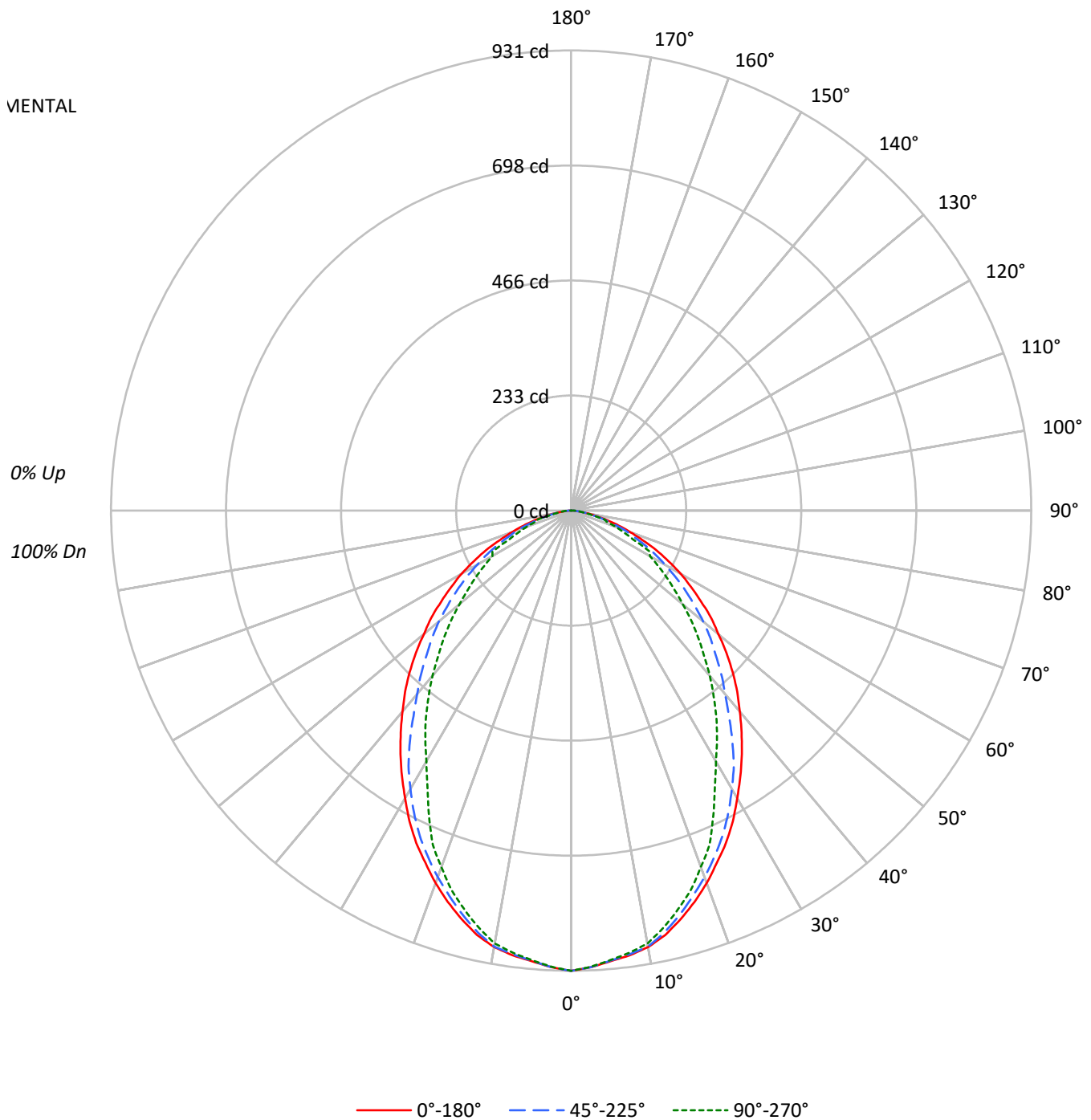
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10023	10023	10023
5°	9887	9875	9864
10°	9801	9789	9719
15°	9537	9441	9309
20°	9187	9039	8791
25°	8809	8618	8080
30°	8349	8081	7278
35°	7908	7469	6733
40°	7457	6806	6126
45°	7030	6293	5539
50°	6507	5841	4940
55°	6020	5292	4425
60°	5515	4728	3963
65°	4852	4139	3510
70°	3997	3626	2980
75°	3177	2774	2911
80°	2132	2002	1866
85°	1334	1593	1865

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7030 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	4.7
10°-20°	237.9	13.0
20°-30°	329.3	18.0
30°-40°	351.2	19.2
40°-50°	320.4	17.5
50°-60°	251.0	13.7
60°-70°	163.6	8.9
70°-80°	72.5	4.0
80°-90°	15.6	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°	653.9	35.8
0°-40°	1005.0	55.0
0°-60°	1576.4	86.2
0°-90°	1828.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1828.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	931	931	931	931	931	
5°	915	914	914	913	913	87
15°	856	856	847	839	835	241
25°	742	737	726	700	680	341
35°	602	597	568	525	512	376
45°	462	452	413	379	364	356
55°	321	311	282	249	236	288
65°	190	180	162	166	138	188
75°	76	71	67	64	70	82
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	931.2	931.2	931.2	931.2	931.2
2.5°	924.7	924.7	924.7	923.6	923.6
5°	915.0	913.9	913.9	912.9	912.9
7.5°	907.5	906.4	905.3	904.2	902.1
10°	896.7	896.7	895.6	890.3	889.2
12.5°	879.5	878.4	874.1	866.6	864.4
15°	855.8	855.8	847.2	838.6	835.4
17.5°	830.0	828.9	818.1	809.5	805.2
20°	802.0	799.8	789.1	775.1	767.5
22.5°	770.8	770.8	757.8	739.5	732.0
25°	741.7	737.4	725.6	699.7	680.3
27.5°	708.3	701.9	688.9	652.3	629.7
30°	671.7	668.5	650.2	602.8	585.6
32.5°	637.3	631.9	612.5	563.0	549.0
35°	601.8	597.4	568.4	525.3	512.4
37.5°	566.2	560.8	524.2	489.8	473.7
40°	530.7	524.2	484.4	453.2	436.0
42.5°	497.3	488.7	450.0	416.6	397.2
45°	461.8	452.1	413.4	378.9	363.9
47.5°	426.3	417.7	382.2	346.6	329.4
50°	388.6	381.1	348.8	313.3	295.0
52.5°	357.4	345.6	314.3	278.8	263.7
55°	320.8	311.1	282.0	248.7	235.8
57.5°	287.4	277.7	250.8	219.6	208.8
60°	256.2	242.2	219.6	192.7	184.1
62.5°	221.8	211.0	191.6	169.0	179.8
65°	190.5	179.8	162.5	165.8	137.8
67.5°	156.1	150.7	135.6	120.6	116.3
70°	127.0	120.6	115.2	99.0	94.7
72.5°	101.2	94.7	87.2	78.6	75.4
75°	76.4	71.0	66.7	63.5	70.0
77.5°	52.7	50.6	47.4	44.1	43.1
80°	34.4	33.4	32.3	31.2	30.1
82.5°	20.5	20.5	20.5	20.5	20.5
85°	10.8	11.8	12.9	14.0	15.1
87.5°	6.5	6.5	7.5	8.6	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)