

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: P559665

Luminaire Tested: FSR-12-2-LD4-1HI-40-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559665
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-LD4-1HI-40-UNV-80-84-EDD
Description: 1X2 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

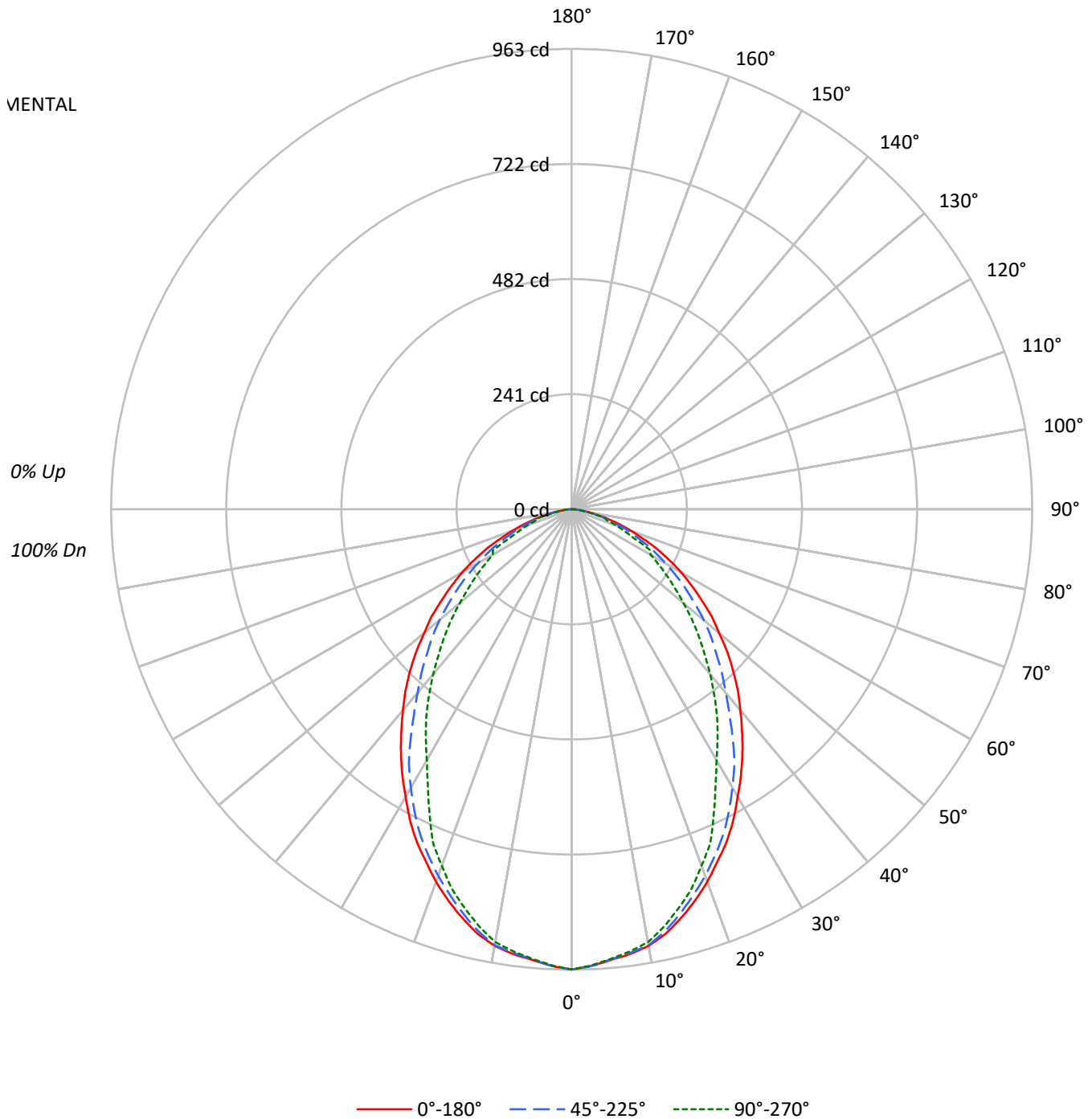
Lumens per Lamp: N/A
Luminaire Lumens: 1890.0 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	5181	5181	5181
5°	5111	5105	5099
10°	5067	5061	5024
15°	4930	4880	4812
20°	4749	4672	4545
25°	4554	4455	4177
30°	4316	4177	3763
35°	4088	3861	3481
40°	3855	3518	3167
45°	3634	3253	2863
50°	3364	3019	2554
55°	3112	2736	2287
60°	2851	2444	2048
65°	2509	2141	1815
70°	2066	1874	1541
75°	1643	1435	1503
80°	1103	1035	967
85°	685	827	963

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3634 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.6	4.7
10°-20°	245.9	13.0
20°-30°	340.5	18.0
30°-40°	363.1	19.2
40°-50°	331.2	17.5
50°-60°	259.5	13.7
60°-70°	169.1	8.9
70°-80°	74.9	4.0
80°-90°	16.1	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°	676.1	35.8
0°-40°	1039.1	55.0
0°-60°	1629.9	86.2
0°-90°	1890.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1890.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	963	963	963	963	963	
5°	946	945	945	944	944	90
15°	885	885	876	867	864	249
25°	767	762	750	723	703	352
35°	622	618	588	543	530	389
45°	478	468	427	392	376	368
55°	332	322	292	257	244	297
65°	197	186	168	171	142	194
75°	79	74	69	66	72	85
85°	11	12	13	14	16	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	962.7	962.7	962.7	962.7	962.7
2.5°	956.1	956.1	956.1	954.9	954.9
5°	946.0	944.9	944.9	943.8	943.8
7.5°	938.3	937.1	936.0	934.9	932.7
10°	927.1	927.1	926.0	920.4	919.3
12.5°	909.3	908.2	903.8	896.0	893.7
15°	884.8	884.8	875.9	867.0	863.7
17.5°	858.1	857.0	845.9	837.0	832.5
20°	829.2	827.0	815.8	801.4	793.6
22.5°	796.9	796.9	783.5	764.6	756.8
25°	766.9	762.4	750.2	723.4	703.4
27.5°	732.4	725.7	712.3	674.5	651.1
30°	694.5	691.2	672.2	623.3	605.5
32.5°	658.9	653.3	633.3	582.1	567.6
35°	622.2	617.7	587.7	543.1	529.8
37.5°	585.4	579.9	542.0	506.4	489.7
40°	548.7	542.0	500.8	468.6	450.8
42.5°	514.2	505.3	465.2	430.7	410.7
45°	477.5	467.5	427.4	391.8	376.2
47.5°	440.7	431.8	395.1	358.4	340.6
50°	401.8	394.0	360.6	323.9	305.0
52.5°	369.5	357.3	325.0	288.3	272.7
55°	331.7	321.7	291.6	257.1	243.7
57.5°	297.2	287.2	259.3	227.1	215.9
60°	264.9	250.4	227.1	199.2	190.3
62.5°	229.3	218.1	198.1	174.7	185.9
65°	197.0	185.9	168.1	171.4	142.5
67.5°	161.4	155.8	140.2	124.7	120.2
70°	131.3	124.7	119.1	102.4	97.9
72.5°	104.6	97.9	90.2	81.2	77.9
75°	79.0	73.5	69.0	65.7	72.3
77.5°	54.5	52.3	49.0	45.6	44.5
80°	35.6	34.5	33.4	32.3	31.2
82.5°	21.1	21.1	21.1	21.1	21.1
85°	11.1	12.2	13.4	14.5	15.6
87.5°	6.7	6.7	7.8	8.9	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)