

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: P559107

Luminaire Tested: FSR-12-1-LD4-2HI-40-UNV-81-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559107
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-81-85-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1815.0 lumens
Efficiency: N/A
Efficacy: 84.0 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

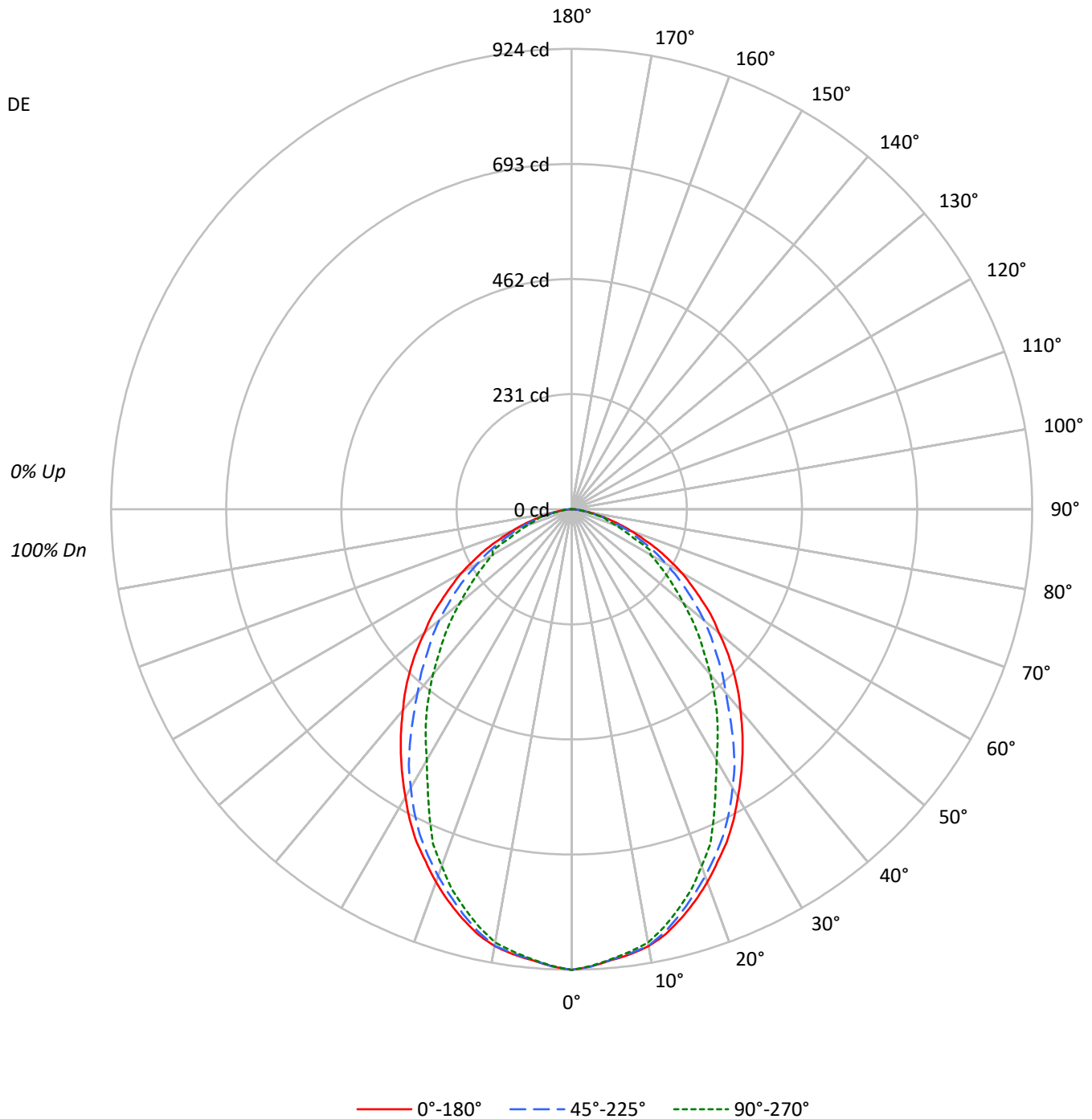
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559107

CATALOG NUMBER: FSR-12-1-LD4-2HI-40-UNV-81-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P559107

CATALOG NUMBER: FSR-12-1-LD4-2HI-40-UNV-81-85-EDD

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°	9951	9951	9951
5°	9816	9804	9794
10°	9731	9720	9650
15°	9469	9374	9243
20°	9121	8975	8730
25°	8746	8556	8023
30°	8289	8024	7226
35°	7851	7415	6686
40°	7404	6759	6083
45°	6980	6247	5500
50°	6460	5799	4905
55°	5977	5255	4393
60°	5477	4693	3935
65°	4819	4111	3484
70°	3969	3600	2961
75°	3157	2757	2890
80°	2120	1990	1853
85°	1321	1581	1853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6980 cd/sqm



TEST NUMBER: P559107

CATALOG NUMBER: FSR-12-1-LD4-2HI-40-UNV-81-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	4.7
10°-20°	236.2	13.0
20°-30°	327.0	18.0
30°-40°	348.7	19.2
40°-50°	318.1	17.5
50°-60°	249.2	13.7
60°-70°	162.4	8.9
70°-80°	72.0	4.0
80°-90°	15.5	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°	649.2	35.8
0°-40°	997.9	55.0
0°-60°	1565.2	86.2
0°-90°	1815.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1815.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	924	924	924	924	924	
5°	908	907	907	906	906	86
15°	850	850	841	833	829	239
25°	736	732	720	695	676	338
35°	598	593	564	522	509	374
45°	458	449	410	376	361	353
55°	318	309	280	247	234	286
65°	189	178	161	165	137	186
75°	76	70	66	63	70	81
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



TEST NUMBER: P559107

CATALOG NUMBER: FSR-12-1-LD4-2HI-40-UNV-81-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	924.5	924.5	924.5	924.5	924.5
2.5°	918.1	918.1	918.1	917.1	917.1
5°	908.5	907.4	907.4	906.4	906.4
7.5°	901.0	900.0	898.9	897.8	895.7
10°	890.3	890.3	889.3	883.9	882.9
12.5°	873.2	872.2	867.9	860.4	858.3
15°	849.7	849.7	841.2	832.6	829.4
17.5°	824.1	823.0	812.3	803.8	799.5
20°	796.3	794.1	783.5	769.6	762.1
22.5°	765.3	765.3	752.5	734.3	726.8
25°	736.4	732.1	720.4	694.7	675.5
27.5°	703.3	696.9	684.1	647.7	625.3
30°	666.9	663.7	645.6	598.5	581.4
32.5°	632.7	627.4	608.2	559.0	545.1
35°	597.5	593.2	564.3	521.6	508.8
37.5°	562.2	556.9	520.5	486.3	470.3
40°	526.9	520.5	481.0	450.0	432.9
42.5°	493.8	485.2	446.8	413.6	394.4
45°	458.5	448.9	410.4	376.2	361.3
47.5°	423.3	414.7	379.4	344.2	327.1
50°	385.8	378.4	346.3	311.0	292.9
52.5°	354.9	343.1	312.1	276.8	261.9
55°	318.5	308.9	280.0	246.9	234.1
57.5°	285.4	275.8	249.0	218.0	207.4
60°	254.4	240.5	218.0	191.3	182.8
62.5°	220.2	209.5	190.3	167.8	178.5
65°	189.2	178.5	161.4	164.6	136.8
67.5°	155.0	149.6	134.7	119.7	115.4
70°	126.1	119.7	114.4	98.3	94.1
72.5°	100.5	94.1	86.6	78.0	74.8
75°	75.9	70.5	66.3	63.1	69.5
77.5°	52.4	50.2	47.0	43.8	42.8
80°	34.2	33.1	32.1	31.0	29.9
82.5°	20.3	20.3	20.3	20.3	20.3
85°	10.7	11.8	12.8	13.9	15.0
87.5°	6.4	6.4	7.5	8.6	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)