

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: P589858

Luminaire Tested: FSR-24-2-LD4-1HI-35-UNV-81-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589858
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-LD4-1HI-35-UNV-81-94-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2279.0 lumens
Efficiency: N/A
Efficacy: 105.5 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

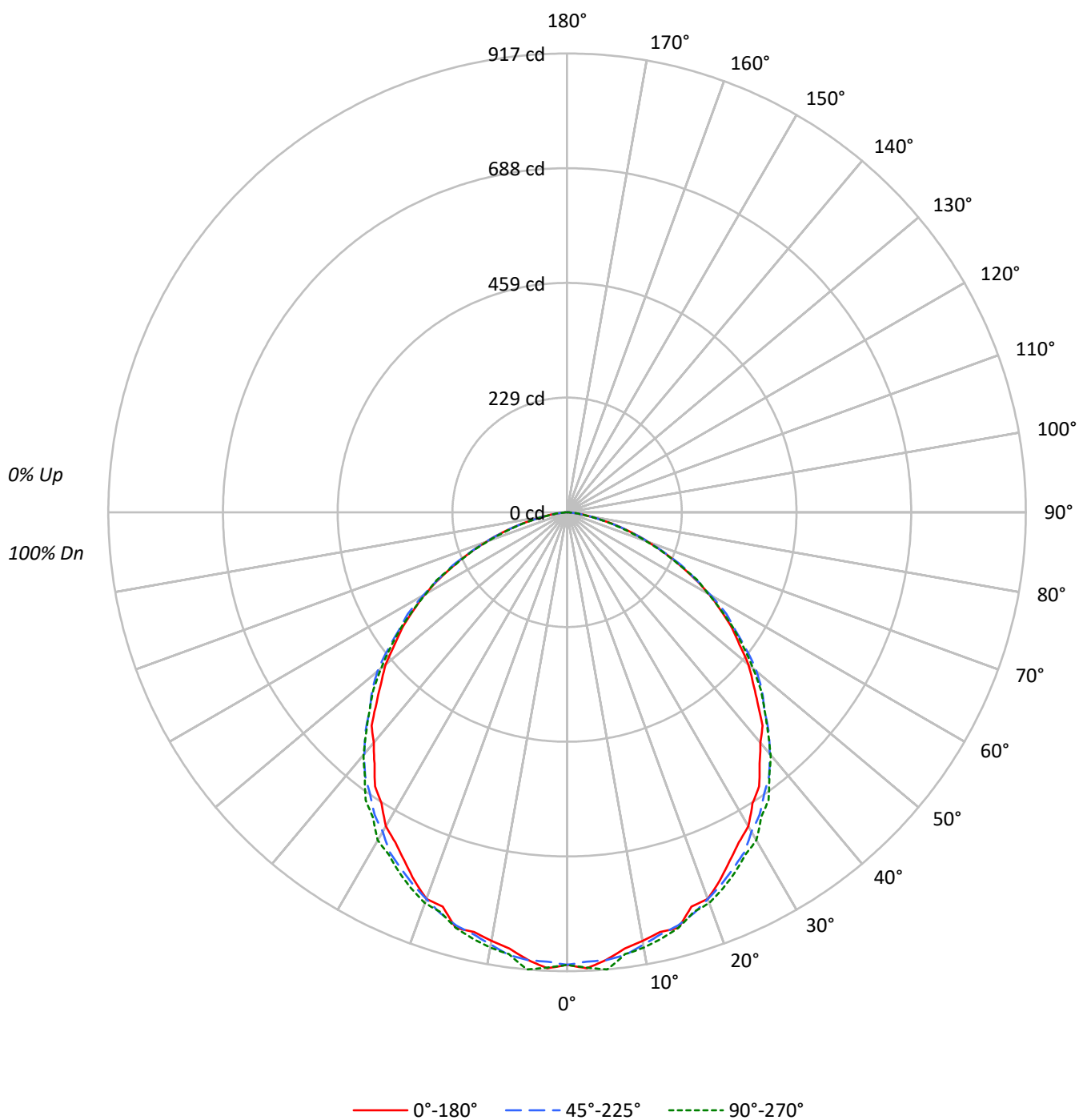
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	110	105	101	98	107	103	100	96		99	96	93		95	93	90		91	90	88
2	100	93	86	81	98	91	85	80		87	82	78		84	80	76		81	78	75
3	92	82	74	68	89	80	73	67		77	71	66		75	69	65		72	68	64
4	84	73	64	58	82	71	64	58		69	62	57		67	61	56		65	59	55
5	78	65	57	50	76	64	56	50		62	55	49		60	54	49		58	53	48
6	72	59	50	44	70	58	50	44		56	49	43		54	48	43		53	47	43
7	67	53	45	39	65	53	45	39		51	44	39		50	43	38		48	42	38
8	62	49	41	35	61	48	40	35		47	40	34		46	39	34		44	39	34
9	58	45	37	31	57	44	37	31		43	36	31		42	36	31		41	35	31
10	54	41	34	29	53	41	33	28		40	33	28		39	33	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2433	2433	2433
5°	2425	2426	2477
10°	2376	2397	2414
15°	2395	2382	2395
20°	2355	2355	2379
25°	2282	2332	2358
30°	2251	2290	2351
35°	2198	2255	2306
40°	2112	2214	2224
45°	2048	2121	2124
50°	1981	2071	2031
55°	1887	1924	1910
60°	1765	1783	1751
65°	1574	1614	1563
70°	1350	1355	1317
75°	1070	1067	1026
80°	716	696	669
85°	389	386	361

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 2176 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.1	3.7
10°-20°	241.1	10.6
20°-30°	361.2	15.8
30°-40°	428.1	18.8
40°-50°	428.8	18.8
50°-60°	364.0	16.0
60°-70°	245.4	10.8
70°-80°	107.8	4.7
80°-90°	17.5	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°	687.3	30.2
0°-40°	1115.4	48.9
0°-60°	1908.2	83.7
0°-90°	2279.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2279.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	898	896	898	896	917	85
15°	860	850	855	859	860	240
25°	769	773	785	796	794	355
35°	669	671	686	702	702	415
45°	538	548	557	572	558	416
55°	402	400	410	407	407	358
65°	247	244	254	244	245	246
75°	103	101	103	95	99	110
85°	13	12	12	12	12	18
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	904.2	904.2	904.2	904.2	904.2
2.5°	912.1	905.2	898.8	906.2	910.8
5°	897.8	895.7	898.2	895.5	917.1
7.5°	879.4	887.4	892.1	889.2	890.5
10°	869.6	866.8	877.2	884.4	883.4
12.5°	859.1	863.3	863.9	871.7	872.4
15°	859.7	849.7	855.0	859.4	859.8
17.5°	826.3	837.0	840.6	850.8	838.2
20°	822.2	814.4	822.2	832.6	830.9
22.5°	797.1	788.3	805.1	814.4	813.8
25°	768.6	772.8	785.4	795.7	794.0
27.5°	743.6	748.5	766.5	780.6	771.5
30°	724.3	721.9	737.1	749.7	756.7
32.5°	689.9	698.8	716.5	729.0	722.3
35°	669.0	671.0	686.5	702.4	701.9
37.5°	632.4	641.7	663.5	667.9	663.9
40°	601.3	610.5	630.2	635.0	633.0
42.5°	578.3	579.9	596.8	602.3	593.6
45°	538.2	548.3	557.4	571.7	558.2
47.5°	504.1	508.8	528.4	532.3	525.2
50°	473.2	474.8	494.6	489.8	485.1
52.5°	434.3	441.2	452.3	451.4	445.9
55°	402.3	399.6	410.2	407.4	407.2
57.5°	363.9	368.6	377.2	372.8	365.7
60°	328.0	328.1	331.2	326.2	325.3
62.5°	287.9	289.3	290.0	283.8	293.9
65°	247.2	243.9	253.5	243.8	245.4
67.5°	209.7	211.3	210.4	204.3	206.7
70°	171.6	173.7	172.2	165.3	167.4
72.5°	136.8	134.3	135.9	127.3	131.2
75°	102.9	100.8	102.6	95.4	98.7
77.5°	70.1	71.7	70.5	66.7	68.9
80°	46.2	44.9	44.9	42.7	43.2
82.5°	27.0	25.7	25.3	24.6	25.7
85°	12.6	12.3	12.5	12.1	11.7
87.5°	4.6	4.7	4.7	4.4	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)