

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: P590593

Luminaire Tested: FSR-24-2-LD4-3LO-50-UNV-81-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590593
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-LD4-3LO-50-UNV-81-88-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3601.0 lumens
Efficiency: N/A
Efficacy: 102.6 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

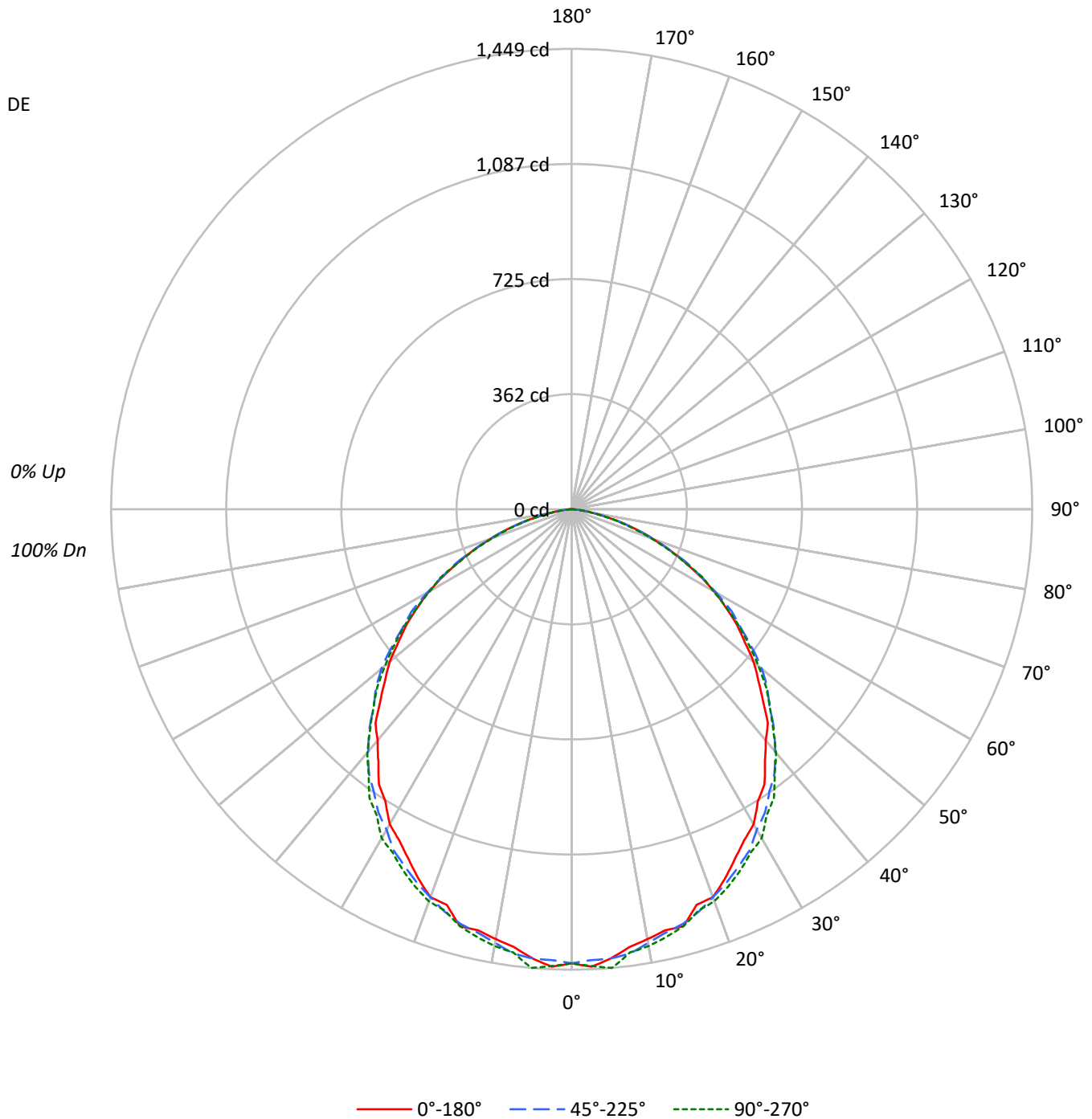
Input Watts (W): 35.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86																												
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73																												
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62																												
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53																												
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46																												
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41																												
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36																												
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32																												
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29																												
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3845	3845	3845
5°	3832	3834	3914
10°	3754	3787	3814
15°	3784	3763	3785
20°	3720	3720	3760
25°	3606	3685	3725
30°	3556	3619	3715
35°	3473	3563	3643
40°	3338	3498	3514
45°	3236	3352	3357
50°	3130	3272	3209
55°	2982	3041	3019
60°	2789	2817	2766
65°	2486	2550	2469
70°	2134	2141	2081
75°	1690	1686	1621
80°	1133	1100	1058
85°	614	608	568

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 3438 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.4	3.7
10°-20°	380.9	10.6
20°-30°	570.7	15.8
30°-40°	676.4	18.8
40°-50°	677.6	18.8
50°-60°	575.2	16.0
60°-70°	387.8	10.8
70°-80°	170.4	4.7
80°-90°	27.7	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°	1086.0	30.2
0°-40°	1762.3	48.9
0°-60°	3015.1	83.7
0°-90°	3601.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3601.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1429	1429	1429	1429	1429	
5°	1419	1415	1419	1415	1449	134
15°	1358	1343	1351	1358	1358	378
25°	1214	1221	1241	1257	1255	561
35°	1057	1060	1085	1110	1109	656
45°	850	866	881	903	882	658
55°	636	632	648	644	644	566
65°	390	385	400	385	388	388
75°	162	159	162	151	156	174
85°	20	19	20	19	18	29
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1428.8	1428.8	1428.8	1428.8	1428.8
2.5°	1441.1	1430.3	1420.1	1431.9	1439.1
5°	1418.6	1415.3	1419.2	1414.9	1449.1
7.5°	1389.5	1402.2	1409.6	1405.0	1407.0
10°	1374.0	1369.6	1386.0	1397.4	1395.8
12.5°	1357.4	1364.0	1365.0	1377.3	1378.4
15°	1358.3	1342.6	1350.9	1357.9	1358.5
17.5°	1305.6	1322.5	1328.2	1344.3	1324.4
20°	1299.1	1286.7	1299.1	1315.5	1312.9
22.5°	1259.4	1245.6	1272.2	1286.7	1285.8
25°	1214.4	1221.1	1241.0	1257.2	1254.6
27.5°	1174.9	1182.7	1211.1	1233.4	1219.0
30°	1144.5	1140.6	1164.6	1184.5	1195.6
32.5°	1090.1	1104.1	1132.1	1151.9	1141.4
35°	1057.1	1060.2	1084.7	1109.8	1109.1
37.5°	999.3	1013.9	1048.4	1055.4	1048.9
40°	950.1	964.6	995.8	1003.4	1000.2
42.5°	913.7	916.3	943.1	951.7	937.9
45°	850.4	866.3	880.7	903.4	882.0
47.5°	796.6	804.0	834.9	841.0	829.8
50°	747.7	750.3	781.5	773.9	766.5
52.5°	686.3	697.1	714.7	713.2	704.5
55°	635.7	631.5	648.1	643.6	643.5
57.5°	575.0	582.4	596.0	589.0	577.8
60°	518.2	518.4	523.4	515.4	514.0
62.5°	454.9	457.1	458.2	448.5	464.3
65°	390.5	385.4	400.5	385.2	387.8
67.5°	331.3	333.9	332.4	322.8	326.5
70°	271.2	274.5	272.1	261.2	264.5
72.5°	216.2	212.2	214.7	201.1	207.4
75°	162.5	159.2	162.2	150.7	155.9
77.5°	110.7	113.3	111.4	105.3	108.8
80°	73.1	71.0	71.0	67.5	68.3
82.5°	42.6	40.6	40.0	38.9	40.6
85°	19.9	19.4	19.7	19.2	18.4
87.5°	7.2	7.4	7.4	7.0	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)