

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: P590529

Luminaire Tested: FSR-24-2-LD4-3LO-35-UNV-81-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590529
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3506.0 lumens
Efficiency: N/A
Efficacy: 99.9 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

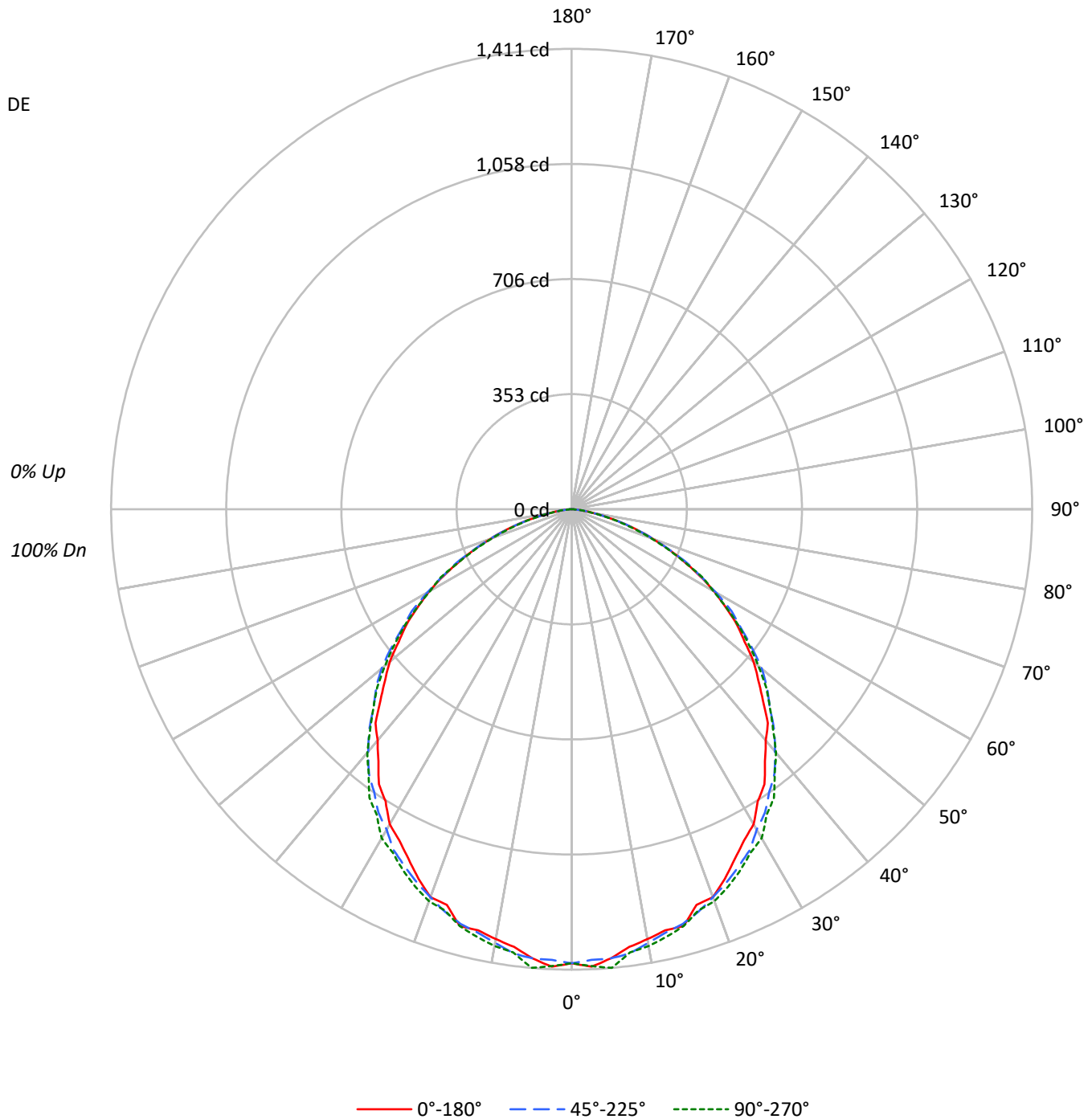
Input Watts (W): 35.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					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°	3743	3743	3743
5°	3731	3733	3811
10°	3655	3687	3713
15°	3684	3664	3685
20°	3622	3622	3661
25°	3511	3587	3627
30°	3462	3523	3617
35°	3381	3469	3547
40°	3249	3406	3421
45°	3151	3263	3268
50°	3048	3185	3124
55°	2904	2960	2939
60°	2715	2743	2693
65°	2421	2483	2404
70°	2077	2084	2027
75°	1645	1642	1578
80°	1102	1072	1031
85°	599	593	556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 3347 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.9	3.7
10°-20°	370.9	10.6
20°-30°	555.6	15.8
30°-40°	658.5	18.8
40°-50°	659.7	18.8
50°-60°	560.0	16.0
60°-70°	377.6	10.8
70°-80°	165.9	4.7
80°-90°	27.0	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°	1057.3	30.2
0°-40°	1715.8	48.9
0°-60°	2935.6	83.7
0°-90°	3506.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3506.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1381	1378	1382	1378	1411	130
15°	1322	1307	1315	1322	1323	368
25°	1182	1189	1208	1224	1222	547
35°	1029	1032	1056	1080	1080	639
45°	828	844	858	880	859	641
55°	619	615	631	627	626	551
65°	380	375	390	375	378	378
75°	158	155	158	147	152	170
85°	19	19	19	19	18	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1391.1	1391.1	1391.1	1391.1	1391.1
2.5°	1403.1	1392.5	1382.7	1394.1	1401.2
5°	1381.2	1378.0	1381.8	1377.6	1410.8
7.5°	1352.8	1365.2	1372.4	1367.9	1369.9
10°	1337.7	1333.4	1349.4	1360.6	1358.9
12.5°	1321.6	1328.0	1328.9	1341.0	1342.1
15°	1322.5	1307.2	1315.3	1322.1	1322.7
17.5°	1271.1	1287.6	1293.2	1308.8	1289.4
20°	1264.8	1252.8	1264.8	1280.8	1278.3
22.5°	1226.2	1212.7	1238.6	1252.8	1251.9
25°	1182.4	1188.8	1208.2	1224.1	1221.5
27.5°	1143.9	1151.5	1179.2	1200.9	1186.9
30°	1114.3	1110.5	1133.9	1153.3	1164.1
32.5°	1061.3	1075.0	1102.3	1121.5	1111.3
35°	1029.2	1032.2	1056.1	1080.5	1079.8
37.5°	973.0	987.1	1020.7	1027.6	1021.3
40°	925.0	939.2	969.5	976.9	973.9
42.5°	889.6	892.1	918.2	926.6	913.1
45°	828.0	843.5	857.5	879.6	858.7
47.5°	775.6	782.7	812.9	818.8	807.9
50°	728.0	730.5	760.8	753.5	746.3
52.5°	668.2	678.8	695.8	694.4	685.9
55°	618.9	614.8	631.0	626.7	626.5
57.5°	559.8	567.0	580.3	573.5	562.5
60°	504.5	504.7	509.6	501.8	500.4
62.5°	442.9	445.1	446.2	436.6	452.1
65°	380.2	375.2	389.9	375.0	377.5
67.5°	322.6	325.1	323.7	314.3	317.9
70°	264.0	267.3	264.9	254.3	257.6
72.5°	210.5	206.6	209.1	195.8	201.9
75°	158.2	155.0	157.9	146.7	151.8
77.5°	107.8	110.3	108.5	102.6	106.0
80°	71.1	69.2	69.2	65.7	66.5
82.5°	41.5	39.5	39.0	37.9	39.5
85°	19.4	18.9	19.2	18.7	18.0
87.5°	7.0	7.2	7.2	6.8	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)