

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P311316

Luminaire Tested: **24FCZ2-35-UNV-L82765-S-CA125-W2A-U-5700K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P311316
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35-UNV-L82765-S-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 5700K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3549.0 lumens
Efficiency: N/A
Efficacy: 123.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

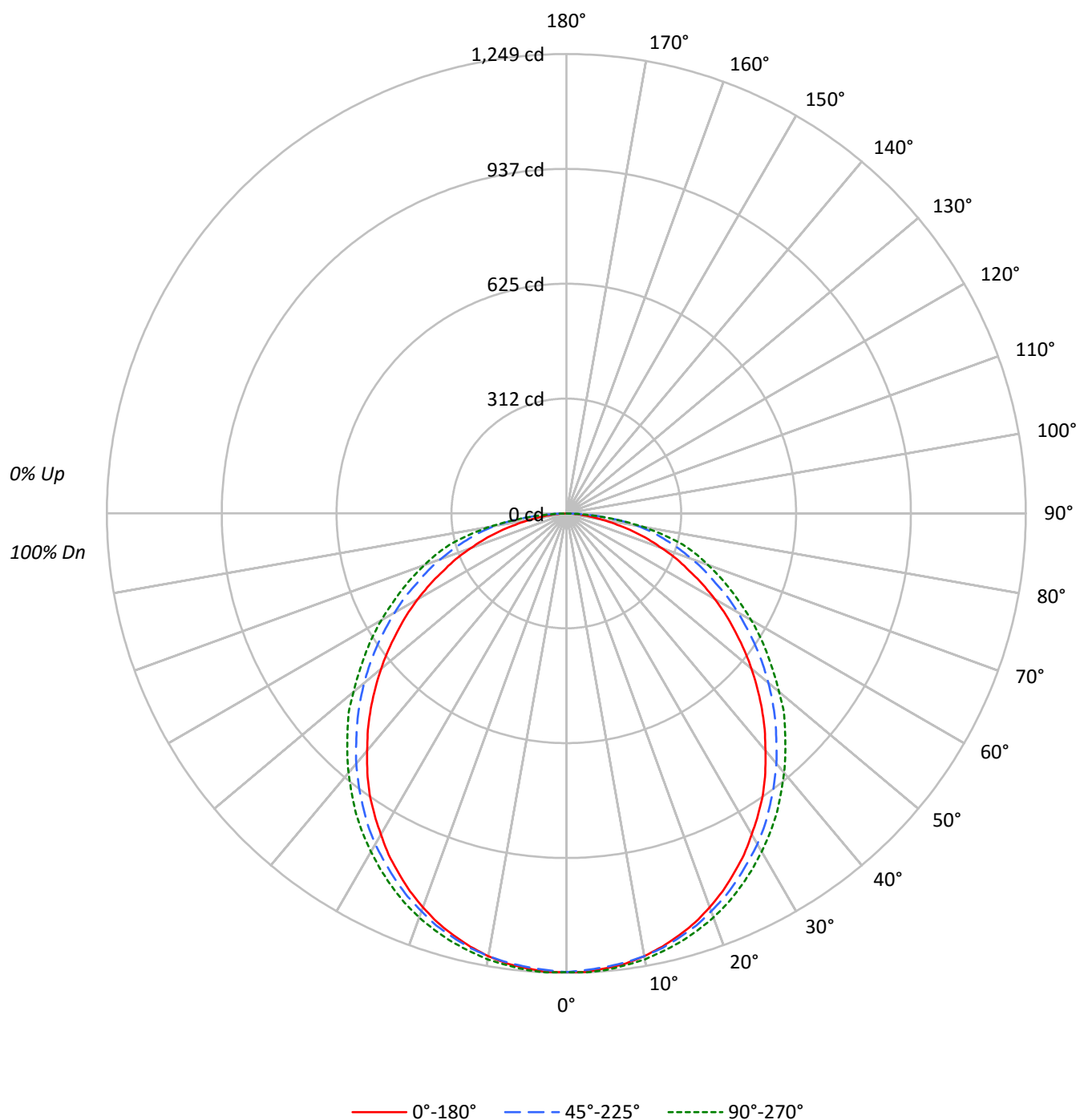
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	108	103	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1678	1678	1678
5°	1676	1672	1682
10°	1670	1670	1682
15°	1653	1661	1679
20°	1632	1648	1674
25°	1602	1632	1663
30°	1566	1613	1650
35°	1531	1587	1637
40°	1479	1560	1618
45°	1431	1529	1600
50°	1376	1501	1581
55°	1314	1473	1566
60°	1253	1450	1562
65°	1174	1425	1572
70°	1087	1432	1614
75°	973	1459	1705
80°	786	1546	1668
85°	591	1357	1323



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.0	3.3
10°-20°	337.3	9.5
20°-30°	507.0	14.3
30°-40°	603.9	17.0
40°-50°	618.1	17.4
50°-60°	556.4	15.7
60°-70°	437.0	12.3
70°-80°	283.6	8.0
80°-90°	87.7	2.5
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°	962.3	27.1
0°-40°	1566.2	44.1
0°-60°	2740.7	77.2
0°-90°	3549.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3549.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1247	1247	1247	1247	1247	
5°	1241	1243	1238	1244	1246	118
15°	1187	1190	1193	1203	1205	335
25°	1079	1088	1099	1117	1120	497
35°	932	944	966	990	996	582
45°	752	770	804	834	841	580
55°	560	585	628	661	667	502
65°	369	397	448	485	494	367
75°	187	223	281	319	328	198
85°	38	71	88	86	86	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1246.8	1246.8	1246.8	1246.8	1246.8
2.5°	1247.9	1247.9	1242.3	1247.9	1249.0
5°	1241.2	1243.4	1237.8	1244.5	1245.7
7.5°	1234.4	1234.4	1231.0	1237.8	1238.9
10°	1222.0	1223.1	1222.0	1229.9	1231.0
12.5°	1206.2	1208.5	1209.6	1217.5	1218.6
15°	1187.0	1190.4	1192.7	1202.8	1205.1
17.5°	1165.6	1169.0	1174.6	1185.9	1188.2
20°	1139.7	1144.2	1151.0	1165.6	1169.0
22.5°	1111.5	1116.0	1127.3	1140.8	1146.5
25°	1078.8	1087.8	1099.1	1117.1	1120.5
27.5°	1046.1	1054.0	1068.7	1087.8	1092.3
30°	1007.8	1020.2	1038.2	1057.4	1061.9
32.5°	970.6	983.0	1004.4	1024.7	1030.3
35°	932.3	943.5	966.1	989.8	996.5
37.5°	888.3	903.0	927.8	951.4	958.2
40°	842.1	860.1	888.3	913.1	921.0
42.5°	798.1	817.3	845.5	872.5	881.5
45°	751.9	769.9	803.8	834.2	841.0
47.5°	704.6	724.8	760.9	791.4	802.6
50°	657.2	678.6	717.0	748.5	755.3
52.5°	609.9	632.4	673.0	706.8	710.2
55°	560.3	585.1	627.9	660.6	667.4
57.5°	515.2	536.6	582.8	616.6	624.5
60°	465.6	489.2	538.8	570.4	580.6
62.5°	418.2	443.0	494.9	526.4	535.5
65°	368.6	396.8	447.5	484.7	493.8
67.5°	325.8	352.8	407.0	443.0	452.0
70°	276.2	306.6	364.1	401.3	410.3
72.5°	233.3	264.9	322.4	358.5	372.0
75°	187.1	223.2	280.7	319.0	328.0
77.5°	142.0	183.7	242.4	271.7	271.7
80°	101.5	145.4	199.5	213.1	215.3
82.5°	66.5	109.3	147.7	146.5	146.5
85°	38.3	71.0	87.9	85.7	85.7
87.5°	14.7	29.3	31.6	31.6	30.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)