

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: P311317

Luminaire Tested: **24FCZ2-35-UNV-L82765-S-CA125-W2A-U-6500K**

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: P311317
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-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 6500K 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: 3559.0 lumens
Efficiency: N/A
Efficacy: 121.9 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

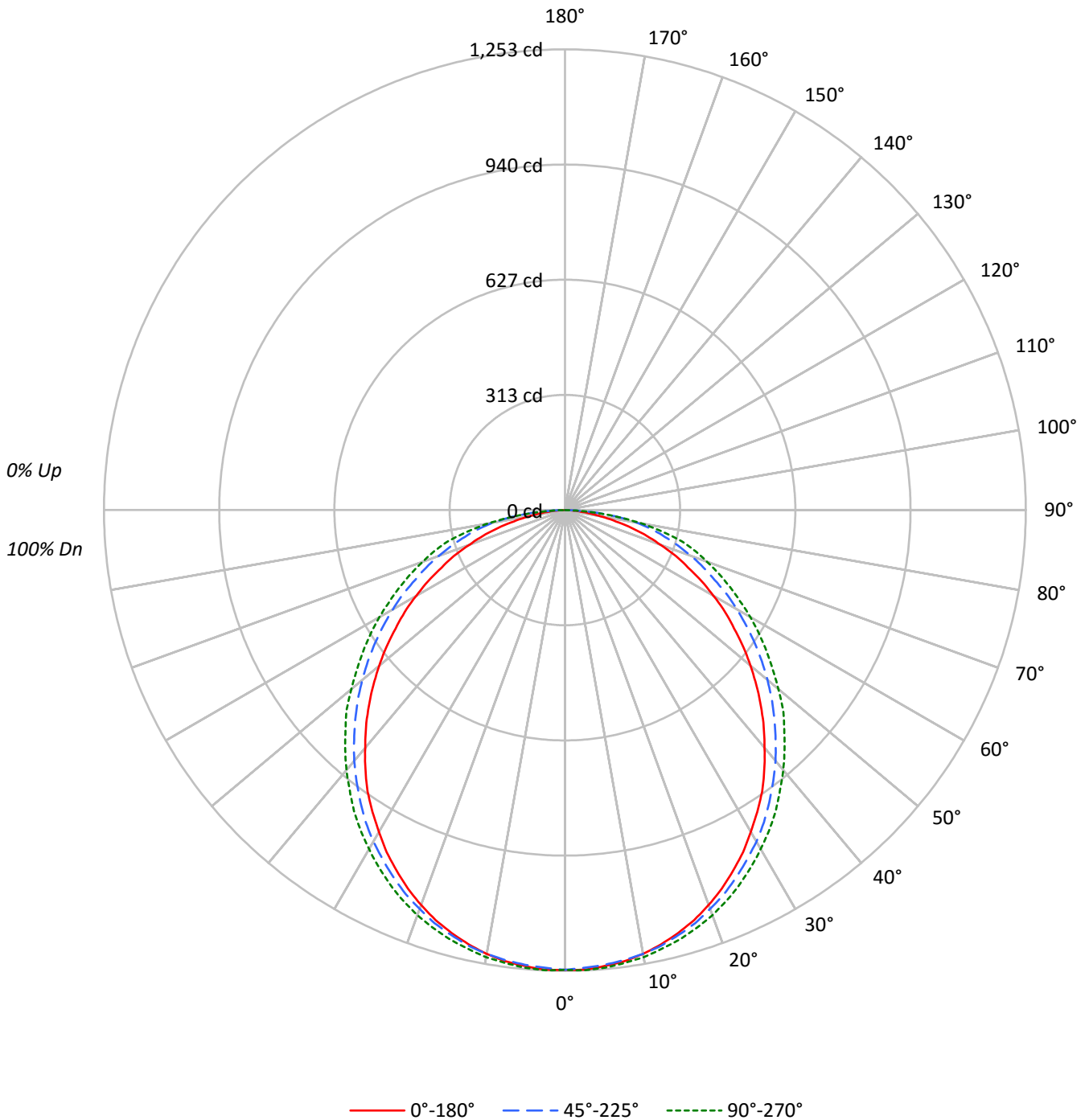
Input Watts (W): 29.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311317

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-S-CA125-W2A-U-6500K

Luminous Intensity Polar Plot





TEST NUMBER: P311317

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-S-CA125-W2A-U-6500K

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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1682	1682	1682
5°	1681	1677	1687
10°	1674	1674	1687
15°	1658	1666	1683
20°	1636	1653	1679
25°	1606	1636	1668
30°	1570	1618	1654
35°	1536	1591	1641
40°	1483	1565	1622
45°	1435	1534	1605
50°	1380	1505	1585
55°	1318	1477	1570
60°	1256	1454	1567
65°	1177	1429	1576
70°	1090	1436	1619
75°	976	1463	1710
80°	788	1550	1673
85°	593	1362	1326



TEST NUMBER: P311317

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-S-CA125-W2A-U-6500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.4	3.3
10°-20°	338.2	9.5
20°-30°	508.4	14.3
30°-40°	605.6	17.0
40°-50°	619.8	17.4
50°-60°	558.0	15.7
60°-70°	438.2	12.3
70°-80°	284.4	8.0
80°-90°	88.0	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°	965.0	27.1
0°-40°	1570.6	44.1
0°-60°	2748.4	77.2
0°-90°	3559.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3559.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1250	1250	1250	1250	1250	
5°	1245	1247	1241	1248	1249	118
15°	1190	1194	1196	1206	1208	336
25°	1082	1091	1102	1120	1124	498
35°	935	946	969	993	999	583
45°	754	772	806	836	843	581
55°	562	587	630	662	669	504
65°	370	398	449	486	495	368
75°	188	224	282	320	329	199
85°	38	71	88	86	86	46
90°	0	0	0	0	0	



TEST NUMBER: P311317

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-S-CA125-W2A-U-6500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1250.3	1250.3	1250.3	1250.3	1250.3
2.5°	1251.4	1251.4	1245.8	1251.4	1252.6
5°	1244.6	1246.9	1241.3	1248.0	1249.2
7.5°	1237.9	1237.9	1234.5	1241.3	1242.4
10°	1225.4	1226.6	1225.4	1233.3	1234.5
12.5°	1209.6	1211.9	1213.0	1220.9	1222.0
15°	1190.4	1193.8	1196.0	1206.2	1208.5
17.5°	1168.9	1172.3	1177.9	1189.3	1191.5
20°	1142.9	1147.4	1154.2	1168.9	1172.3
22.5°	1114.6	1119.2	1130.5	1144.0	1149.7
25°	1081.9	1090.9	1102.2	1120.3	1123.7
27.5°	1049.1	1057.0	1071.7	1090.9	1095.4
30°	1010.6	1023.1	1041.2	1060.4	1064.9
32.5°	973.3	985.8	1007.2	1027.6	1033.2
35°	934.9	946.2	968.8	992.6	999.3
37.5°	890.8	905.5	930.4	954.1	960.9
40°	844.5	862.5	890.8	915.7	923.6
42.5°	800.4	819.6	847.9	875.0	884.0
45°	754.0	772.1	806.0	836.5	843.3
47.5°	706.5	726.9	763.1	793.6	804.9
50°	659.1	680.5	719.0	750.6	757.4
52.5°	611.6	634.2	674.9	708.8	712.2
55°	561.8	586.7	629.7	662.5	669.2
57.5°	516.6	538.1	584.5	618.4	626.3
60°	466.9	490.6	540.4	572.0	582.2
62.5°	419.4	444.3	496.3	527.9	537.0
65°	369.7	397.9	448.8	486.1	495.1
67.5°	326.7	353.8	408.1	444.3	453.3
70°	277.0	307.5	365.1	402.4	411.5
72.5°	234.0	265.7	323.3	359.5	373.1
75°	187.7	223.8	281.5	319.9	329.0
77.5°	142.4	184.3	243.1	272.4	272.4
80°	101.7	145.8	200.1	213.7	215.9
82.5°	66.7	109.7	148.1	147.0	147.0
85°	38.4	71.2	88.2	85.9	85.9
87.5°	14.7	29.4	31.7	31.7	30.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)