

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: P311265

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-S-CA125-W2A-U-3000K**

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: P311265
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: 24FCZ2-35HE-UNV-L82765-S-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 3000K 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: 3180.0 lumens
Efficiency: N/A
Efficacy: 123.3 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

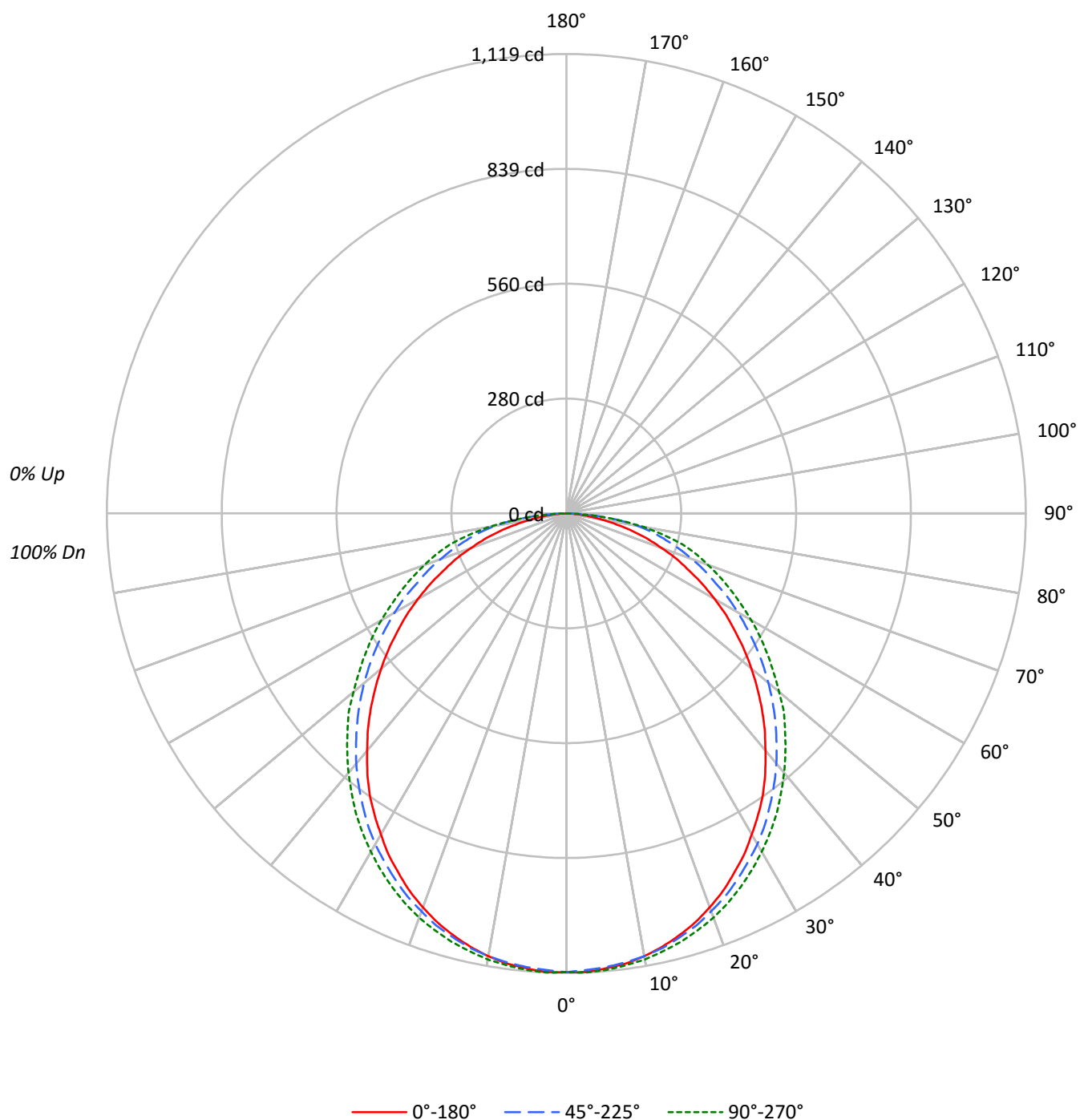
Input Watts (W): 25.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1503	1503	1503
5°	1502	1498	1507
10°	1496	1496	1507
15°	1482	1489	1504
20°	1462	1477	1500
25°	1435	1462	1491
30°	1403	1445	1478
35°	1372	1422	1467
40°	1325	1398	1449
45°	1282	1370	1434
50°	1233	1345	1417
55°	1178	1320	1403
60°	1123	1299	1400
65°	1052	1277	1408
70°	974	1284	1447
75°	872	1307	1528
80°	704	1385	1495
85°	530	1216	1186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.8	3.3
10°-20°	302.2	9.5
20°-30°	454.3	14.3
30°-40°	541.1	17.0
40°-50°	553.8	17.4
50°-60°	498.6	15.7
60°-70°	391.6	12.3
70°-80°	254.1	8.0
80°-90°	78.6	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°	862.2	27.1
0°-40°	1403.3	44.1
0°-60°	2455.7	77.2
0°-90°	3180.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3180.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1117	1117	1117	1117	1117	
5°	1112	1114	1109	1115	1116	106
15°	1064	1067	1069	1078	1080	300
25°	967	975	985	1001	1004	445
35°	835	845	866	887	893	521
45°	674	690	720	748	754	519
55°	502	524	563	592	598	450
65°	330	356	401	434	442	329
75°	168	200	252	286	294	177
85°	34	64	79	77	77	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1117.2	1117.2	1117.2	1117.2	1117.2
2.5°	1118.2	1118.2	1113.1	1118.2	1119.2
5°	1112.1	1114.1	1109.1	1115.1	1116.1
7.5°	1106.0	1106.0	1103.0	1109.1	1110.1
10°	1094.9	1095.9	1094.9	1102.0	1103.0
12.5°	1080.8	1082.8	1083.8	1090.9	1091.9
15°	1063.6	1066.7	1068.7	1077.8	1079.8
17.5°	1044.4	1047.5	1052.5	1062.6	1064.6
20°	1021.2	1025.2	1031.3	1044.4	1047.5
22.5°	995.9	1000.0	1010.1	1022.2	1027.3
25°	966.7	974.7	984.8	1001.0	1004.0
27.5°	937.4	944.4	957.6	974.7	978.8
30°	903.0	914.1	930.3	947.5	951.5
32.5°	869.7	880.8	900.0	918.2	923.2
35°	835.3	845.4	865.6	886.9	892.9
37.5°	795.9	809.1	831.3	852.5	858.6
40°	754.5	770.7	795.9	818.2	825.2
42.5°	715.1	732.3	757.6	781.8	789.9
45°	673.7	689.9	720.2	747.5	753.5
47.5°	631.3	649.5	681.8	709.1	719.2
50°	588.9	608.1	642.4	670.7	676.8
52.5°	546.5	566.7	603.0	633.3	636.4
55°	502.0	524.2	562.6	591.9	598.0
57.5°	461.6	480.8	522.2	552.5	559.6
60°	417.2	438.4	482.8	511.1	520.2
62.5°	374.7	397.0	443.4	471.7	479.8
65°	330.3	355.6	401.0	434.3	442.4
67.5°	291.9	316.2	364.6	397.0	405.0
70°	247.5	274.7	326.3	359.6	367.7
72.5°	209.1	237.4	288.9	321.2	333.3
75°	167.7	200.0	251.5	285.9	293.9
77.5°	127.3	164.6	217.2	243.4	243.4
80°	90.9	130.3	178.8	190.9	192.9
82.5°	59.6	98.0	132.3	131.3	131.3
85°	34.3	63.6	78.8	76.8	76.8
87.5°	13.1	26.3	28.3	28.3	27.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)