

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: P311278

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-S-CP125-W2A-U-5000K**

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: P311278
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-CP125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5000K 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: 3401.0 lumens
Efficiency: N/A
Efficacy: 127.9 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

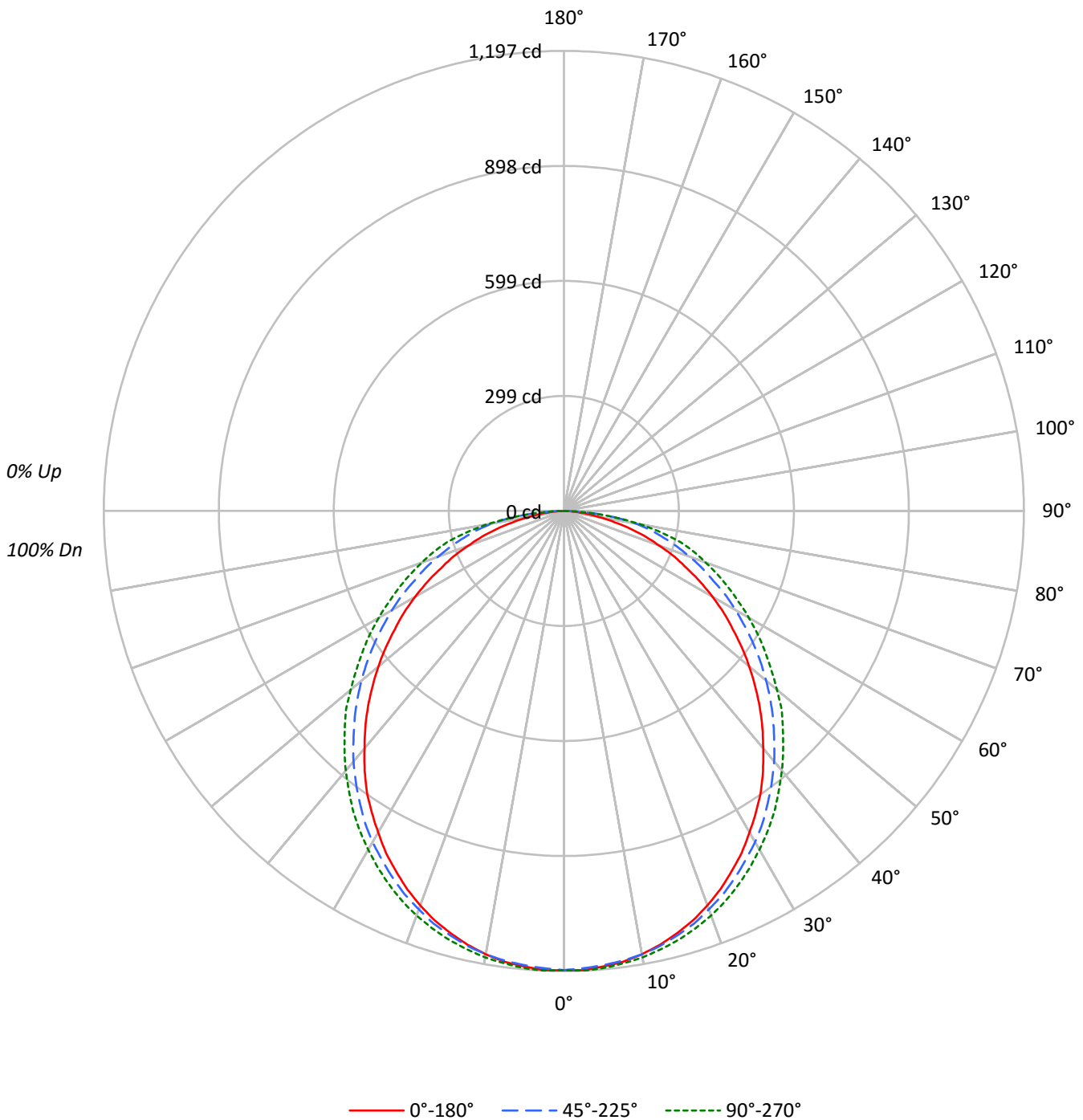
Input Watts (W): 26.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1608	1608	1608
5°	1606	1602	1612
10°	1600	1600	1612
15°	1584	1592	1609
20°	1564	1579	1604
25°	1535	1564	1594
30°	1501	1546	1581
35°	1467	1521	1569
40°	1417	1495	1550
45°	1371	1466	1533
50°	1318	1438	1515
55°	1259	1411	1500
60°	1201	1390	1497
65°	1125	1365	1507
70°	1041	1373	1547
75°	932	1398	1634
80°	753	1481	1598
85°	567	1301	1267



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.1	3.3
10°-20°	323.2	9.5
20°-30°	485.8	14.3
30°-40°	578.7	17.0
40°-50°	592.3	17.4
50°-60°	533.2	15.7
60°-70°	418.8	12.3
70°-80°	271.8	8.0
80°-90°	84.1	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°	922.2	27.1
0°-40°	1500.9	44.1
0°-60°	2626.4	77.2
0°-90°	3401.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3401.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1195	1195	1195	1195	1195	
5°	1189	1192	1186	1193	1194	113
15°	1138	1141	1143	1153	1155	321
25°	1034	1042	1053	1071	1074	476
35°	893	904	926	948	955	557
45°	720	738	770	799	806	556
55°	537	561	602	633	640	481
65°	353	380	429	464	473	352
75°	179	214	269	306	314	190
85°	37	68	84	82	82	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1194.8	1194.8	1194.8	1194.8	1194.8
2.5°	1195.9	1195.9	1190.5	1195.9	1197.0
5°	1189.4	1191.6	1186.2	1192.6	1193.7
7.5°	1182.9	1182.9	1179.7	1186.2	1187.2
10°	1171.0	1172.1	1171.0	1178.6	1179.7
12.5°	1155.9	1158.1	1159.1	1166.7	1167.8
15°	1137.5	1140.8	1142.9	1152.7	1154.8
17.5°	1117.0	1120.3	1125.7	1136.5	1138.6
20°	1092.2	1096.5	1103.0	1117.0	1120.3
22.5°	1065.2	1069.5	1080.3	1093.2	1098.6
25°	1033.8	1042.5	1053.3	1070.6	1073.8
27.5°	1002.5	1010.1	1024.1	1042.5	1046.8
30°	965.8	977.7	994.9	1013.3	1017.6
32.5°	930.1	942.0	962.5	982.0	987.4
35°	893.4	904.2	925.8	948.5	955.0
37.5°	851.3	865.3	889.1	911.8	918.2
40°	807.0	824.3	851.3	875.0	882.6
42.5°	764.8	783.2	810.2	836.1	844.8
45°	720.5	737.8	770.2	799.4	805.9
47.5°	675.2	694.6	729.2	758.4	769.2
50°	629.8	650.3	687.1	717.3	723.8
52.5°	584.4	606.0	644.9	677.3	680.6
55°	536.9	560.7	601.7	633.0	639.5
57.5°	493.7	514.2	558.5	590.9	598.5
60°	446.2	468.8	516.4	546.6	556.3
62.5°	400.8	424.6	474.2	504.5	513.1
65°	353.3	380.3	428.9	464.5	473.2
67.5°	312.2	338.1	390.0	424.6	433.2
70°	264.7	293.8	348.9	384.6	393.2
72.5°	223.6	253.9	309.0	343.5	356.5
75°	179.3	213.9	269.0	305.7	314.4
77.5°	136.1	176.1	232.3	260.3	260.3
80°	97.2	139.4	191.2	204.2	206.3
82.5°	63.7	104.8	141.5	140.4	140.4
85°	36.7	68.1	84.3	82.1	82.1
87.5°	14.0	28.1	30.2	30.2	29.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)