

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: P314195

Luminaire Tested: **24FCZ2-30-UNV-L83050-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: P314195
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: 24FCZ2-30-UNV-L83050-S-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 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: 2744.0 lumens
Efficiency: N/A
Efficacy: 117.3 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

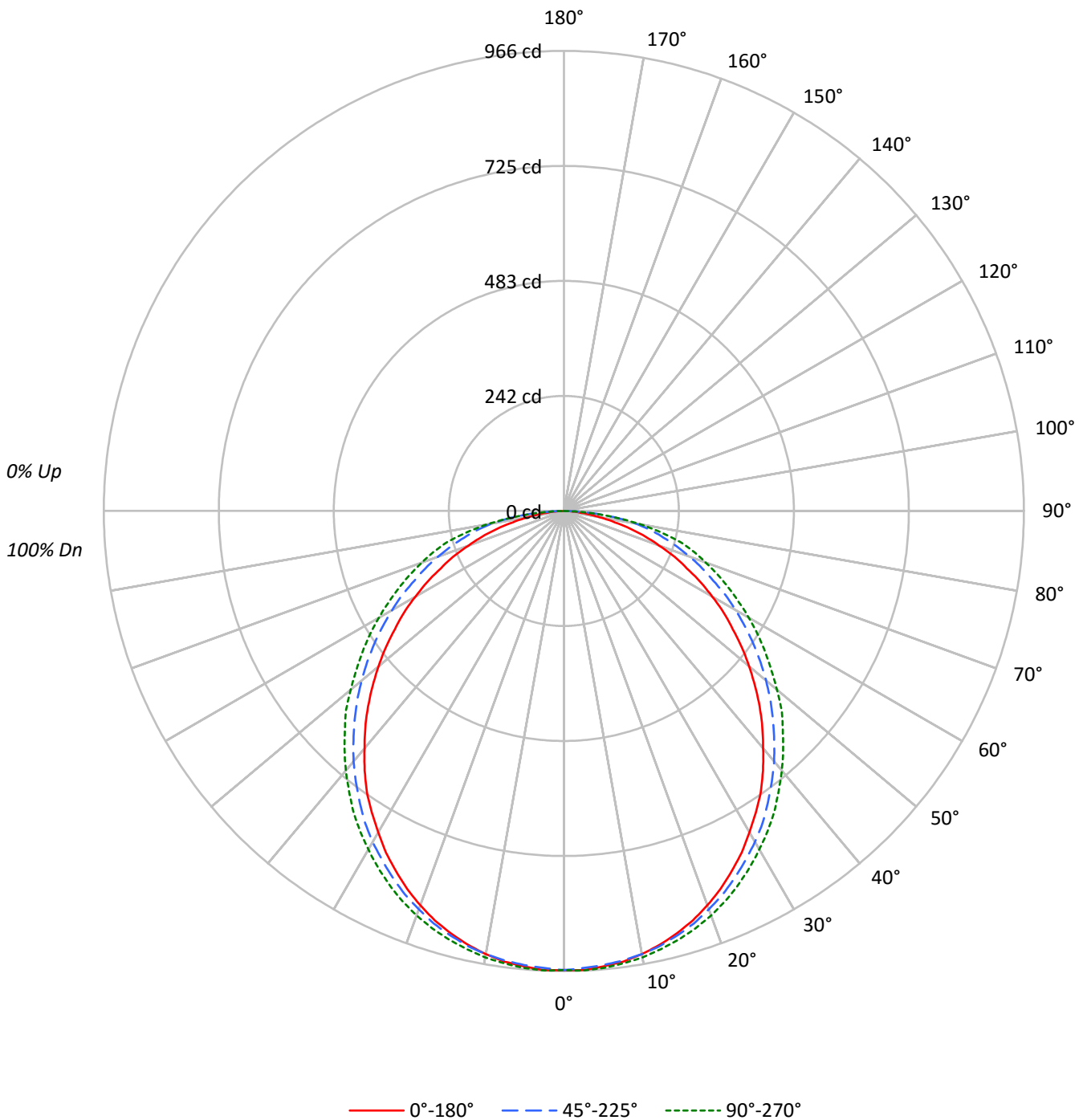
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1297	1297	1297
5°	1296	1293	1301
10°	1291	1291	1300
15°	1278	1284	1298
20°	1262	1274	1294
25°	1238	1262	1286
30°	1211	1247	1276
35°	1184	1227	1266
40°	1144	1206	1251
45°	1106	1182	1237
50°	1064	1160	1222
55°	1016	1139	1210
60°	969	1121	1208
65°	907	1102	1216
70°	840	1107	1248
75°	752	1128	1318
80°	607	1196	1290
85°	457	1050	1022



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.3	3.3
10°-20°	260.8	9.5
20°-30°	392.0	14.3
30°-40°	466.9	17.0
40°-50°	477.9	17.4
50°-60°	430.2	15.7
60°-70°	337.9	12.3
70°-80°	219.3	8.0
80°-90°	67.8	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°	744.0	27.1
0°-40°	1210.9	44.1
0°-60°	2119.0	77.2
0°-90°	2744.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2744.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	964	964	964	964	964	
5°	960	961	957	962	963	91
15°	918	920	922	930	932	259
25°	834	841	850	864	866	384
35°	721	730	747	765	770	450
45°	581	595	621	645	650	448
55°	433	452	486	511	516	388
65°	285	307	346	375	382	284
75°	145	173	217	247	254	153
85°	30	55	68	66	66	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	964.0	964.0	964.0	964.0	964.0
2.5°	964.9	964.9	960.5	964.9	965.7
5°	959.6	961.4	957.0	962.2	963.1
7.5°	954.4	954.4	951.8	957.0	957.9
10°	944.8	945.7	944.8	950.9	951.8
12.5°	932.6	934.4	935.2	941.3	942.2
15°	917.8	920.4	922.1	930.0	931.7
17.5°	901.2	903.8	908.2	916.9	918.7
20°	881.2	884.7	889.9	901.2	903.8
22.5°	859.4	862.9	871.6	882.1	886.4
25°	834.1	841.1	849.8	863.8	866.4
27.5°	808.8	814.9	826.3	841.1	844.6
30°	779.2	788.8	802.7	817.6	821.0
32.5°	750.4	760.0	776.6	792.3	796.6
35°	720.8	729.5	747.0	765.3	770.5
37.5°	686.8	698.1	717.3	735.6	740.9
40°	651.1	665.0	686.8	706.0	712.1
42.5°	617.1	631.9	653.7	674.6	681.6
45°	581.4	595.3	621.4	645.0	650.2
47.5°	544.7	560.4	588.3	611.9	620.6
50°	508.1	524.7	554.3	578.7	584.0
52.5°	471.5	489.0	520.3	546.5	549.1
55°	433.2	452.4	485.5	510.8	516.0
57.5°	398.3	414.9	450.6	476.8	482.9
60°	360.0	378.3	416.6	441.0	448.9
62.5°	323.4	342.5	382.6	407.0	414.0
65°	285.0	306.8	346.0	374.8	381.8
67.5°	251.9	272.8	314.6	342.5	349.5
70°	213.5	237.1	281.5	310.3	317.3
72.5°	180.4	204.8	249.3	277.2	287.6
75°	144.7	172.6	217.0	246.7	253.6
77.5°	109.8	142.1	187.4	210.1	210.1
80°	78.4	112.4	154.3	164.7	166.5
82.5°	51.4	84.5	114.2	113.3	113.3
85°	29.6	54.9	68.0	66.2	66.2
87.5°	11.3	22.7	24.4	24.4	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)