

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: P310553

Luminaire Tested: **24FCZ2-30-UNV-L82765-CP125-W2A-U-2700K**

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: P310553
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-L82765-CP125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 2700K 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: 2486.0 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

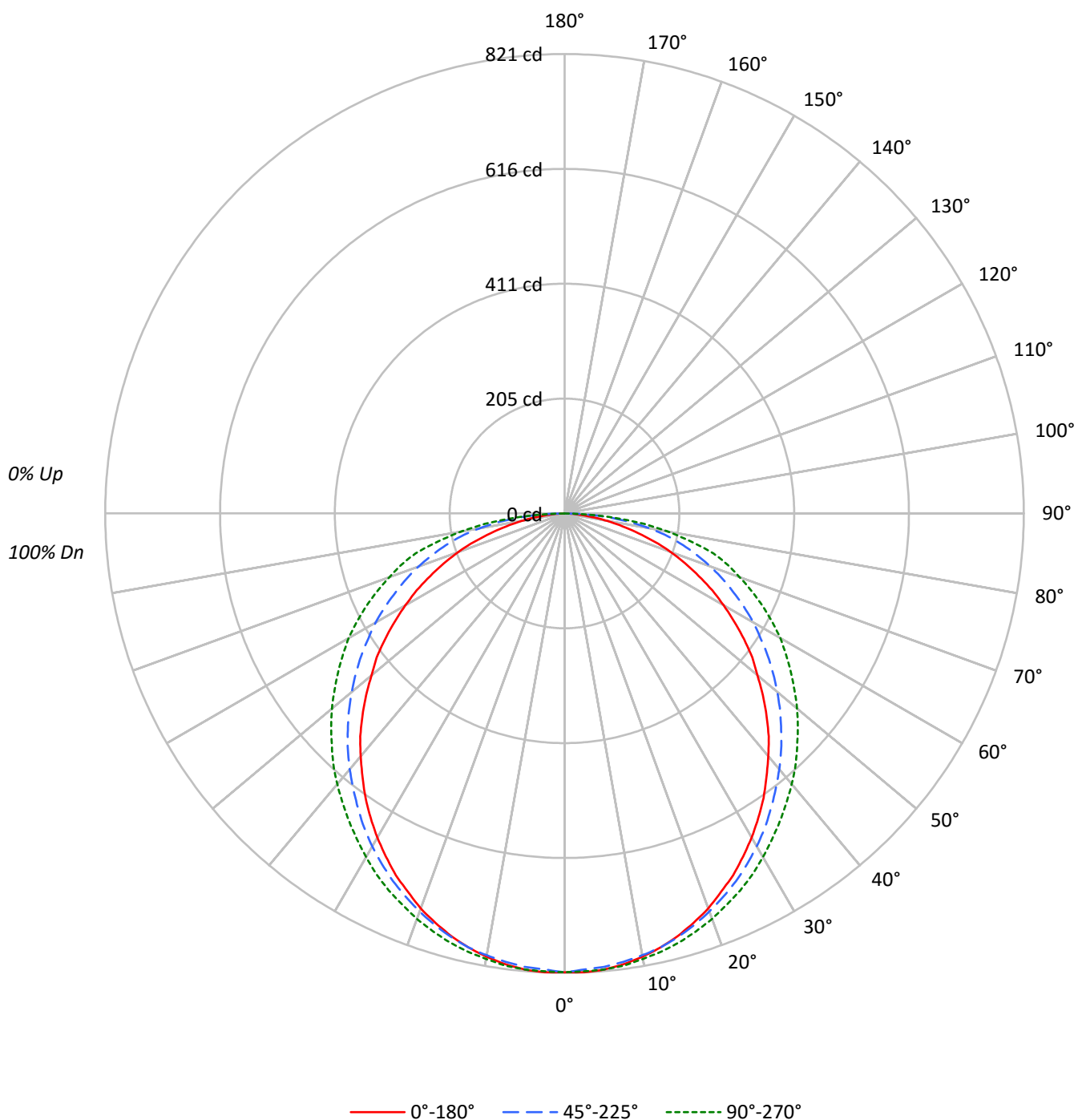
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1103	1103	1103
5°	1105	1098	1105
10°	1099	1095	1104
15°	1089	1092	1105
20°	1076	1084	1104
25°	1059	1076	1103
30°	1039	1068	1102
35°	1019	1057	1103
40°	995	1049	1110
45°	972	1042	1119
50°	943	1039	1136
55°	919	1041	1159
60°	883	1050	1199
65°	843	1061	1242
70°	798	1094	1311
75°	712	1141	1432
80°	607	1208	1464
85°	432	1196	1400



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.6	3.1
10°-20°	221.9	8.9
20°-30°	335.1	13.5
30°-40°	403.9	16.2
40°-50°	424.0	17.1
50°-60°	396.7	16.0
60°-70°	327.6	13.2
70°-80°	223.2	9.0
80°-90°	76.1	3.1
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°	634.5	25.5
0°-40°	1038.4	41.8
0°-60°	1859.1	74.8
0°-90°	2486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2486.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	818	817	813	818	818	78
15°	782	783	784	792	794	220
25°	714	717	725	739	743	328
35°	620	627	643	665	671	388
45°	511	521	548	577	588	394
55°	392	408	444	480	494	350
65°	265	287	333	375	390	263
75°	137	168	219	261	276	146
85°	28	55	78	87	91	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	819.9	819.9	819.9	819.9	819.9
2.5°	820.7	819.9	815.7	819.9	819.0
5°	818.2	817.4	813.3	818.2	818.2
7.5°	812.4	812.4	808.3	814.1	814.9
10°	804.2	804.2	801.7	808.3	808.3
12.5°	794.3	794.3	794.3	800.9	801.7
15°	781.9	782.7	783.6	791.8	793.5
17.5°	767.1	768.7	771.2	781.1	782.7
20°	751.4	753.1	757.2	768.7	771.2
22.5°	731.6	735.7	741.5	754.7	757.2
25°	713.5	716.8	725.0	739.0	743.2
27.5°	691.2	696.1	706.9	721.7	727.5
30°	668.9	673.9	687.1	704.4	709.3
32.5°	645.0	652.4	666.4	684.6	690.4
35°	620.3	626.9	643.4	664.8	671.4
37.5°	593.0	602.1	620.3	643.4	651.6
40°	566.6	576.5	597.2	621.9	631.8
42.5°	540.3	550.1	573.2	601.3	611.2
45°	510.6	521.3	547.7	577.4	588.1
47.5°	480.9	494.1	522.9	554.3	565.8
50°	450.3	465.2	496.5	529.5	542.7
52.5°	423.1	437.1	470.1	505.6	518.0
55°	391.8	407.5	443.7	480.0	494.1
57.5°	359.6	376.9	415.7	455.3	469.3
60°	328.3	347.2	390.1	429.7	445.4
62.5°	297.8	316.7	361.3	402.5	418.2
65°	264.8	287.0	333.2	375.3	390.1
67.5°	233.4	257.3	306.0	347.2	362.1
70°	202.9	226.0	278.0	318.4	333.2
72.5°	169.9	196.3	248.3	290.3	306.0
75°	136.9	168.3	219.4	260.6	275.5
77.5°	106.4	138.6	189.7	223.5	230.9
80°	78.4	111.3	155.9	179.8	188.9
82.5°	50.3	83.3	118.8	136.1	143.5
85°	28.0	55.3	77.5	87.4	90.7
87.5°	11.5	23.9	31.3	35.5	35.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)