

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: P310574

Luminaire Tested: **24FCZ2-30-UNV-L82765-CP250-W2A-U-4000K**

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: P310574
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-CP250-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 4000K 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: 2569.0 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

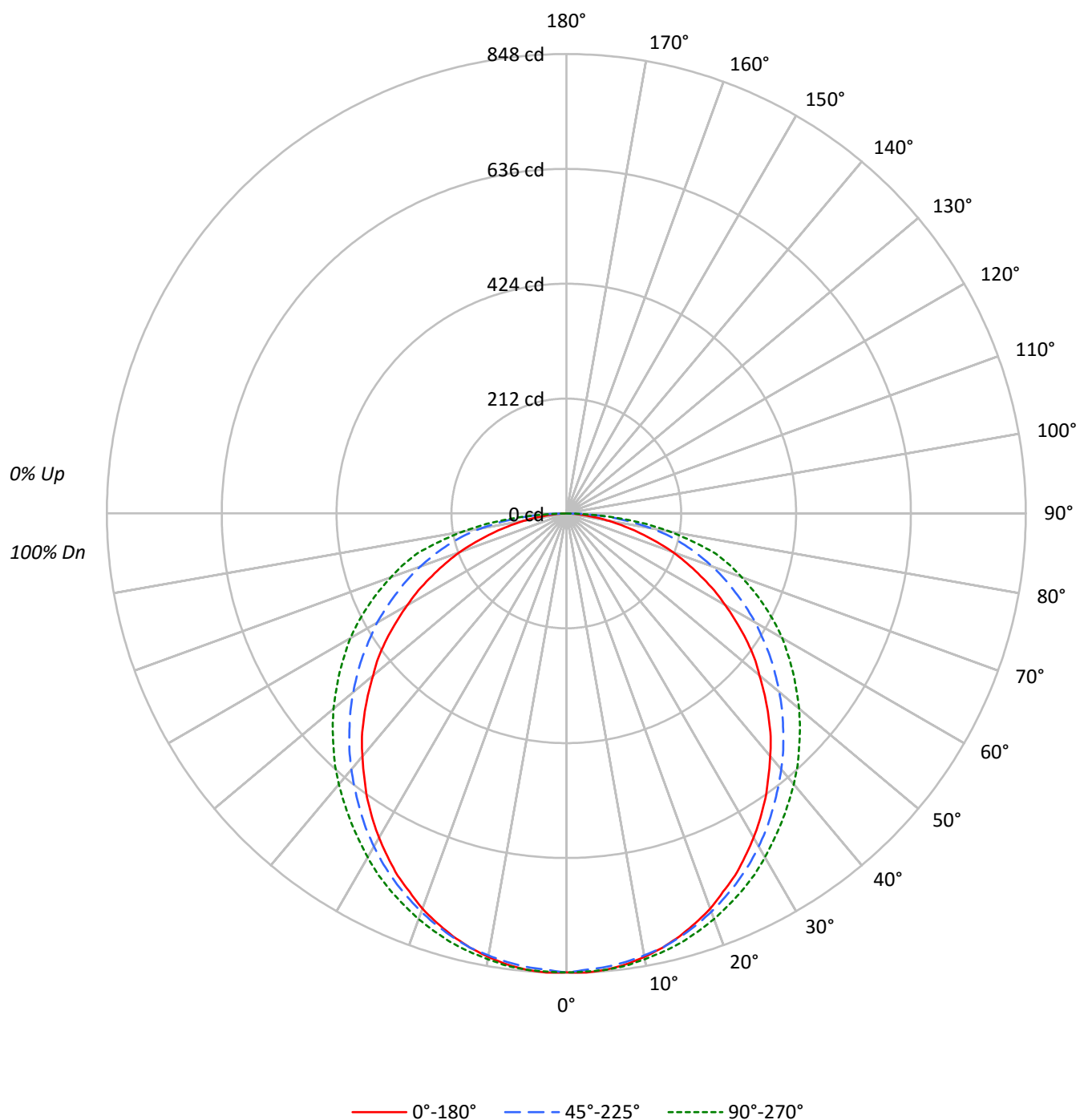
Input Watts (W): 23.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1140	1140	1140
5°	1142	1135	1142
10°	1135	1132	1141
15°	1126	1128	1142
20°	1112	1120	1141
25°	1095	1112	1140
30°	1074	1103	1139
35°	1053	1092	1140
40°	1029	1084	1147
45°	1004	1077	1156
50°	974	1074	1174
55°	950	1076	1198
60°	913	1085	1239
65°	871	1096	1284
70°	825	1130	1354
75°	736	1179	1480
80°	628	1248	1512
85°	448	1237	1448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	3.1
10°-20°	229.3	8.9
20°-30°	346.3	13.5
30°-40°	417.4	16.2
40°-50°	438.2	17.1
50°-60°	409.9	16.0
60°-70°	338.5	13.2
70°-80°	230.7	9.0
80°-90°	78.7	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°	655.7	25.5
0°-40°	1073.1	41.8
0°-60°	1921.2	74.8
0°-90°	2569.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2569.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	847	847	847	847	847	
5°	846	845	840	846	846	80
15°	808	809	810	818	820	228
25°	737	741	749	764	768	339
35°	641	648	665	687	694	401
45°	528	539	566	597	608	407
55°	405	421	459	496	511	361
65°	274	297	344	388	403	271
75°	142	174	227	269	285	151
85°	29	57	80	90	94	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	847.2	847.2	847.2	847.2	847.2
2.5°	848.1	847.2	843.0	847.2	846.4
5°	845.5	844.7	840.4	845.5	845.5
7.5°	839.6	839.6	835.3	841.3	842.1
10°	831.0	831.0	828.5	835.3	835.3
12.5°	820.8	820.8	820.8	827.6	828.5
15°	808.0	808.9	809.7	818.3	820.0
17.5°	792.7	794.4	796.9	807.2	808.9
20°	776.5	778.2	782.5	794.4	796.9
22.5°	756.0	760.3	766.3	779.9	782.5
25°	737.3	740.7	749.2	763.7	768.0
27.5°	714.3	719.4	730.5	745.8	751.8
30°	691.3	696.4	710.0	727.9	733.0
32.5°	666.5	674.2	688.7	707.4	713.4
35°	641.0	647.8	664.8	687.0	693.8
37.5°	612.8	622.2	641.0	664.8	673.4
40°	585.6	595.8	617.1	642.7	652.9
42.5°	558.3	568.5	592.4	621.4	631.6
45°	527.6	538.7	566.0	596.6	607.7
47.5°	496.9	510.6	540.4	572.8	584.7
50°	465.4	480.7	513.1	547.2	560.8
52.5°	437.3	451.7	485.8	522.5	535.3
55°	404.9	421.1	458.6	496.1	510.6
57.5°	371.6	389.5	429.6	470.5	485.0
60°	339.2	358.8	403.2	444.1	460.3
62.5°	307.7	327.3	373.3	415.9	432.1
65°	273.6	296.6	344.3	387.8	403.2
67.5°	241.2	265.9	316.2	358.8	374.2
70°	209.7	233.5	287.2	329.0	344.3
72.5°	175.6	202.9	256.6	300.0	316.2
75°	141.5	173.9	226.7	269.3	284.7
77.5°	110.0	143.2	196.0	231.0	238.7
80°	81.0	115.1	161.1	185.8	195.2
82.5°	52.0	86.1	122.7	140.6	148.3
85°	29.0	57.1	80.1	90.3	93.8
87.5°	11.9	24.7	32.4	36.7	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)