

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: P310579

Luminaire Tested: **24FCZ2-30-UNV-L82765-CP250-W2A-U-6500K**

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: P310579
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-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 6500K 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: 2690.0 lumens
Efficiency: N/A
Efficacy: 110.2 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

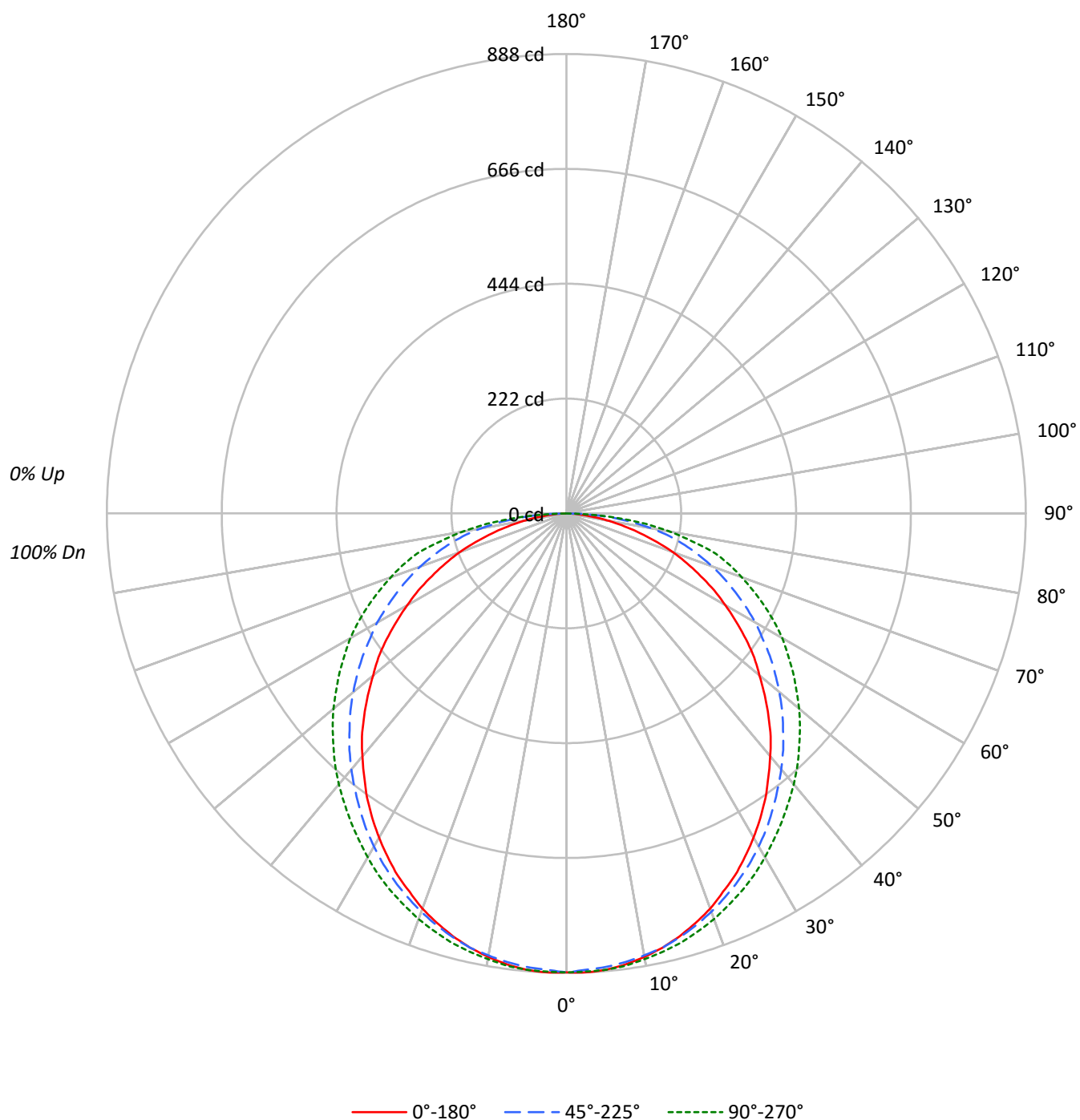
Input Watts (W): 24.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1194	1194	1194
5°	1196	1189	1196
10°	1189	1185	1195
15°	1179	1181	1196
20°	1164	1173	1195
25°	1146	1165	1194
30°	1125	1155	1192
35°	1102	1143	1193
40°	1077	1135	1201
45°	1051	1128	1211
50°	1020	1125	1229
55°	994	1126	1254
60°	956	1136	1297
65°	912	1148	1344
70°	864	1183	1419
75°	770	1234	1550
80°	657	1307	1584
85°	468	1295	1516



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.0	3.1
10°-20°	240.1	8.9
20°-30°	362.6	13.5
30°-40°	437.0	16.2
40°-50°	458.8	17.1
50°-60°	429.2	16.0
60°-70°	354.5	13.2
70°-80°	241.5	9.0
80°-90°	82.4	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°	686.6	25.5
0°-40°	1123.6	41.8
0°-60°	2011.6	74.8
0°-90°	2690.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2690.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	885	884	880	885	885	84
15°	846	847	848	857	859	238
25°	772	776	784	800	804	355
35°	671	678	696	719	726	419
45°	552	564	593	625	636	426
55°	424	441	480	519	535	378
65°	286	311	361	406	422	284
75°	148	182	237	282	298	158
85°	30	60	84	95	98	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	887.1	887.1	887.1	887.1	887.1
2.5°	888.0	887.1	882.7	887.1	886.2
5°	885.4	884.5	880.0	885.4	885.4
7.5°	879.1	879.1	874.6	880.9	881.8
10°	870.2	870.2	867.5	874.6	874.6
12.5°	859.5	859.5	859.5	866.6	867.5
15°	846.1	847.0	847.9	856.8	858.6
17.5°	830.0	831.8	834.5	845.2	847.0
20°	813.1	814.8	819.3	831.8	834.5
22.5°	791.6	796.1	802.4	816.6	819.3
25°	772.0	775.6	784.5	799.7	804.1
27.5°	747.9	753.3	764.9	780.9	787.2
30°	723.8	729.2	743.4	762.2	767.5
32.5°	697.9	706.0	721.1	740.8	747.0
35°	671.2	678.3	696.1	719.3	726.5
37.5°	641.7	651.5	671.2	696.1	705.1
40°	613.1	623.9	646.2	672.9	683.7
42.5°	584.6	595.3	620.3	650.6	661.3
45°	552.5	564.1	592.6	624.7	636.3
47.5°	520.3	534.6	565.8	599.8	612.3
50°	487.3	503.4	537.3	573.0	587.3
52.5°	457.8	473.0	508.7	547.1	560.5
55°	423.9	440.9	480.2	519.4	534.6
57.5°	389.1	407.9	449.8	492.7	507.8
60°	355.2	375.7	422.1	465.0	481.9
62.5°	322.2	342.7	390.9	435.5	452.5
65°	286.5	310.6	360.6	406.1	422.1
67.5°	252.6	278.5	331.1	375.7	391.8
70°	219.6	244.5	300.8	344.5	360.6
72.5°	183.9	212.4	268.6	314.2	331.1
75°	148.2	182.1	237.4	282.0	298.1
77.5°	115.1	149.9	205.3	241.9	249.9
80°	84.8	120.5	168.7	194.6	204.4
82.5°	54.4	90.1	128.5	147.3	155.3
85°	30.3	59.8	83.9	94.6	98.2
87.5°	12.5	25.9	33.9	38.4	38.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)