

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: P310551

Luminaire Tested: **24FCZ2-30-UNV-L82765-CA125-W2A-U-5700K**

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: P310551
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-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 5700K 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

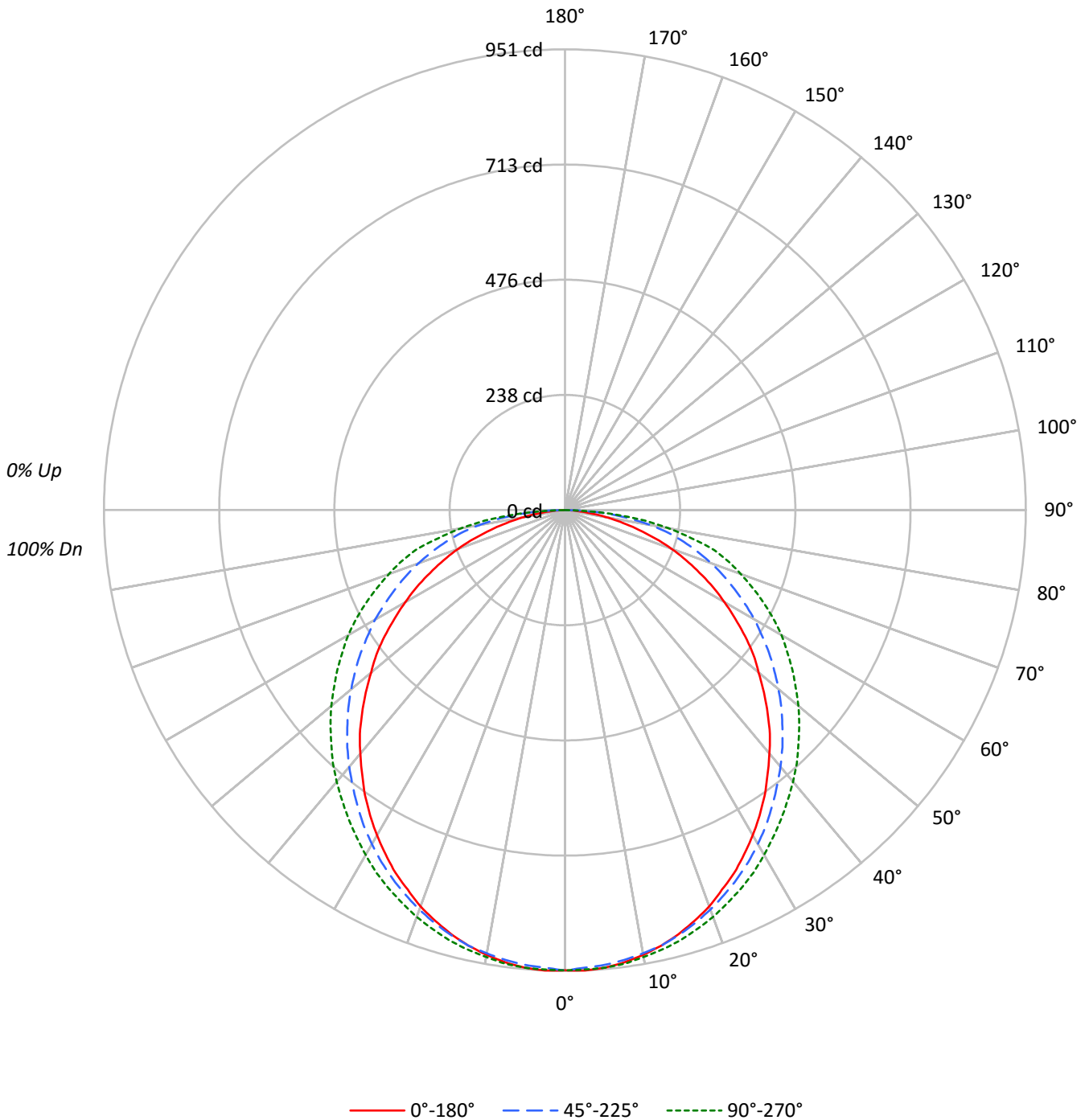
Lumens per Lamp: N/A
Luminaire Lumens: 2881.0 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24.1
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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1278	1278	1278
5°	1281	1273	1281
10°	1273	1269	1280
15°	1262	1265	1281
20°	1247	1256	1280
25°	1227	1247	1279
30°	1204	1237	1277
35°	1181	1225	1278
40°	1153	1215	1286
45°	1126	1208	1297
50°	1092	1204	1317
55°	1065	1206	1343
60°	1024	1217	1389
65°	977	1230	1439
70°	925	1267	1519
75°	825	1322	1660
80°	704	1400	1696
85°	502	1388	1623



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	3.1
10°-20°	257.1	8.9
20°-30°	388.3	13.5
30°-40°	468.0	16.2
40°-50°	491.4	17.1
50°-60°	459.7	16.0
60°-70°	379.6	13.2
70°-80°	258.7	9.0
80°-90°	88.2	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°	735.4	25.5
0°-40°	1203.4	41.8
0°-60°	2154.5	74.8
0°-90°	2881.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2881.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	948	947	942	948	948	90
15°	906	907	908	918	920	255
25°	827	831	840	856	861	380
35°	719	726	746	770	778	449
45°	592	604	635	669	682	456
55°	454	472	514	556	573	405
65°	307	333	386	435	452	304
75°	159	195	254	302	319	169
85°	32	64	90	101	105	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	950.1	950.1	950.1	950.1	950.1
2.5°	951.1	950.1	945.3	950.1	949.2
5°	948.2	947.3	942.5	948.2	948.2
7.5°	941.5	941.5	936.7	943.4	944.4
10°	932.0	932.0	929.1	936.7	936.7
12.5°	920.5	920.5	920.5	928.1	929.1
15°	906.2	907.1	908.1	917.6	919.5
17.5°	889.0	890.9	893.7	905.2	907.1
20°	870.8	872.7	877.5	890.9	893.7
22.5°	847.9	852.6	859.3	874.6	877.5
25°	826.8	830.6	840.2	856.5	861.2
27.5°	801.0	806.7	819.2	836.4	843.1
30°	775.2	780.9	796.2	816.3	822.0
32.5°	747.5	756.1	772.3	793.4	800.1
35°	718.8	726.5	745.6	770.4	778.1
37.5°	687.3	697.8	718.8	745.6	755.1
40°	656.7	668.1	692.0	720.7	732.2
42.5°	626.1	637.6	664.3	696.8	708.3
45°	591.7	604.1	634.7	669.1	681.5
47.5°	557.3	572.6	606.0	642.3	655.7
50°	521.9	539.1	575.4	613.7	629.0
52.5°	490.4	506.6	544.8	585.9	600.3
55°	454.0	472.2	514.3	556.3	572.6
57.5°	416.8	436.8	481.8	527.6	543.9
60°	380.4	402.4	452.1	498.0	516.2
62.5°	345.1	367.1	418.7	466.5	484.6
65°	306.8	332.6	386.2	434.9	452.1
67.5°	270.5	298.2	354.6	402.4	419.6
70°	235.1	261.9	322.1	369.0	386.2
72.5°	196.9	227.5	287.7	336.5	354.6
75°	158.7	195.0	254.3	302.1	319.3
77.5°	123.3	160.6	219.8	259.0	267.6
80°	90.8	129.0	180.7	208.4	218.9
82.5°	58.3	96.5	137.6	157.7	166.3
85°	32.5	64.0	89.9	101.3	105.1
87.5°	13.4	27.7	36.3	41.1	41.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)