

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: P310558

Luminaire Tested: **24FCZ2-30-UNV-L82765-CP125-W2A-U-5000K**

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: P310558
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-5000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 5000K 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

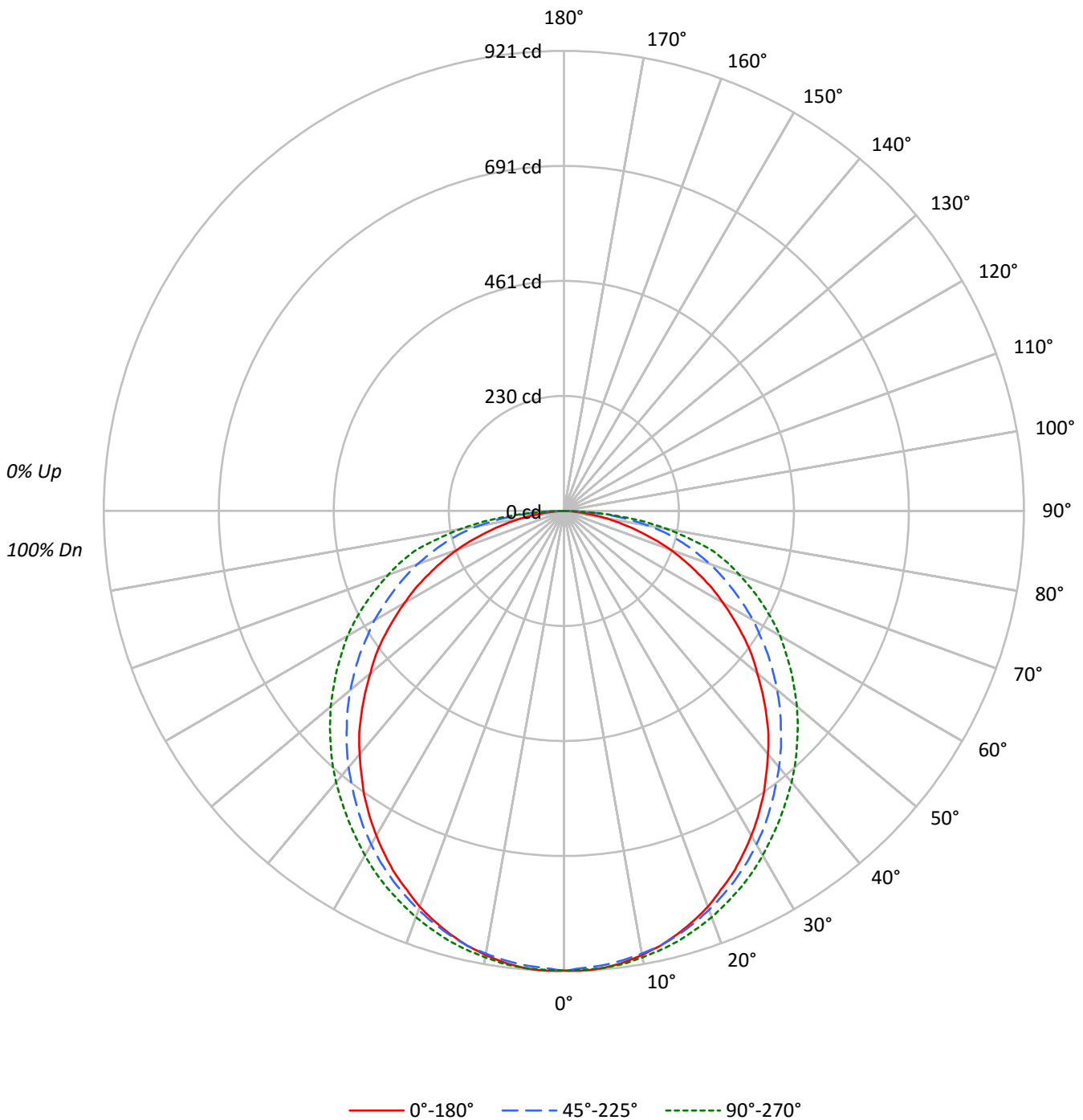
Lumens per Lamp: N/A
Luminaire Lumens: 2790.0 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.9
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°	1238	1238	1238
5°	1240	1233	1240
10°	1233	1229	1239
15°	1222	1225	1240
20°	1207	1217	1239
25°	1189	1208	1238
30°	1166	1198	1237
35°	1143	1186	1238
40°	1117	1177	1245
45°	1090	1169	1256
50°	1058	1167	1275
55°	1031	1168	1301
60°	991	1178	1345
65°	946	1191	1394
70°	896	1227	1471
75°	799	1280	1607
80°	681	1356	1643
85°	486	1343	1572



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	3.1
10°-20°	249.0	8.9
20°-30°	376.1	13.5
30°-40°	453.3	16.2
40°-50°	475.8	17.1
50°-60°	445.2	16.0
60°-70°	367.6	13.2
70°-80°	250.5	9.0
80°-90°	85.4	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°	712.1	25.5
0°-40°	1165.4	41.8
0°-60°	2086.4	74.8
0°-90°	2790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2790.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	918	917	913	918	918	87
15°	878	878	879	889	890	247
25°	801	804	814	829	834	368
35°	696	704	722	746	754	435
45°	573	585	615	648	660	442
55°	440	457	498	539	554	392
65°	297	322	374	421	438	295
75°	154	189	246	292	309	164
85°	32	62	87	98	102	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	920.1	920.1	920.1	920.1	920.1
2.5°	921.0	920.1	915.5	920.1	919.2
5°	918.3	917.3	912.7	918.3	918.3
7.5°	911.8	911.8	907.2	913.6	914.6
10°	902.5	902.5	899.8	907.2	907.2
12.5°	891.4	891.4	891.4	898.8	899.8
15°	877.5	878.5	879.4	888.6	890.5
17.5°	860.9	862.7	865.5	876.6	878.5
20°	843.3	845.1	849.8	862.7	865.5
22.5°	821.1	825.7	832.2	847.0	849.8
25°	800.7	804.4	813.7	829.4	834.0
27.5°	775.7	781.3	793.3	810.0	816.4
30°	750.7	756.3	771.1	790.5	796.1
32.5°	723.9	732.2	747.9	768.3	774.8
35°	696.1	703.5	722.0	746.1	753.5
37.5°	665.6	675.7	696.1	722.0	731.3
40°	635.9	647.0	670.2	698.0	709.1
42.5°	606.3	617.4	643.3	674.8	685.9
45°	573.0	585.0	614.6	648.0	660.0
47.5°	539.7	554.5	586.9	622.1	635.0
50°	505.4	522.1	557.3	594.3	609.1
52.5°	474.9	490.6	527.6	567.4	581.3
55°	439.7	457.3	498.0	538.7	554.5
57.5°	403.6	423.0	466.5	511.0	526.7
60°	368.4	389.7	437.8	482.3	499.9
62.5°	334.2	355.5	405.4	451.7	469.3
65°	297.1	322.1	374.0	421.2	437.8
67.5°	262.0	288.8	343.4	389.7	406.4
70°	227.7	253.6	312.0	357.3	374.0
72.5°	190.7	220.3	278.6	325.8	343.4
75°	153.7	188.8	246.2	292.5	309.2
77.5°	119.4	155.5	212.9	250.9	259.2
80°	87.9	125.0	175.0	201.8	212.0
82.5°	56.5	93.5	133.3	152.7	161.1
85°	31.5	62.0	87.0	98.1	101.8
87.5°	13.0	26.8	35.2	39.8	39.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)