

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: P313870

Luminaire Tested: **24FCZ2-35-UNV-L83050-CA125-W2A-U-3000K**

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: P313870
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: 24FCZ2-35-UNV-L83050-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3000K 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

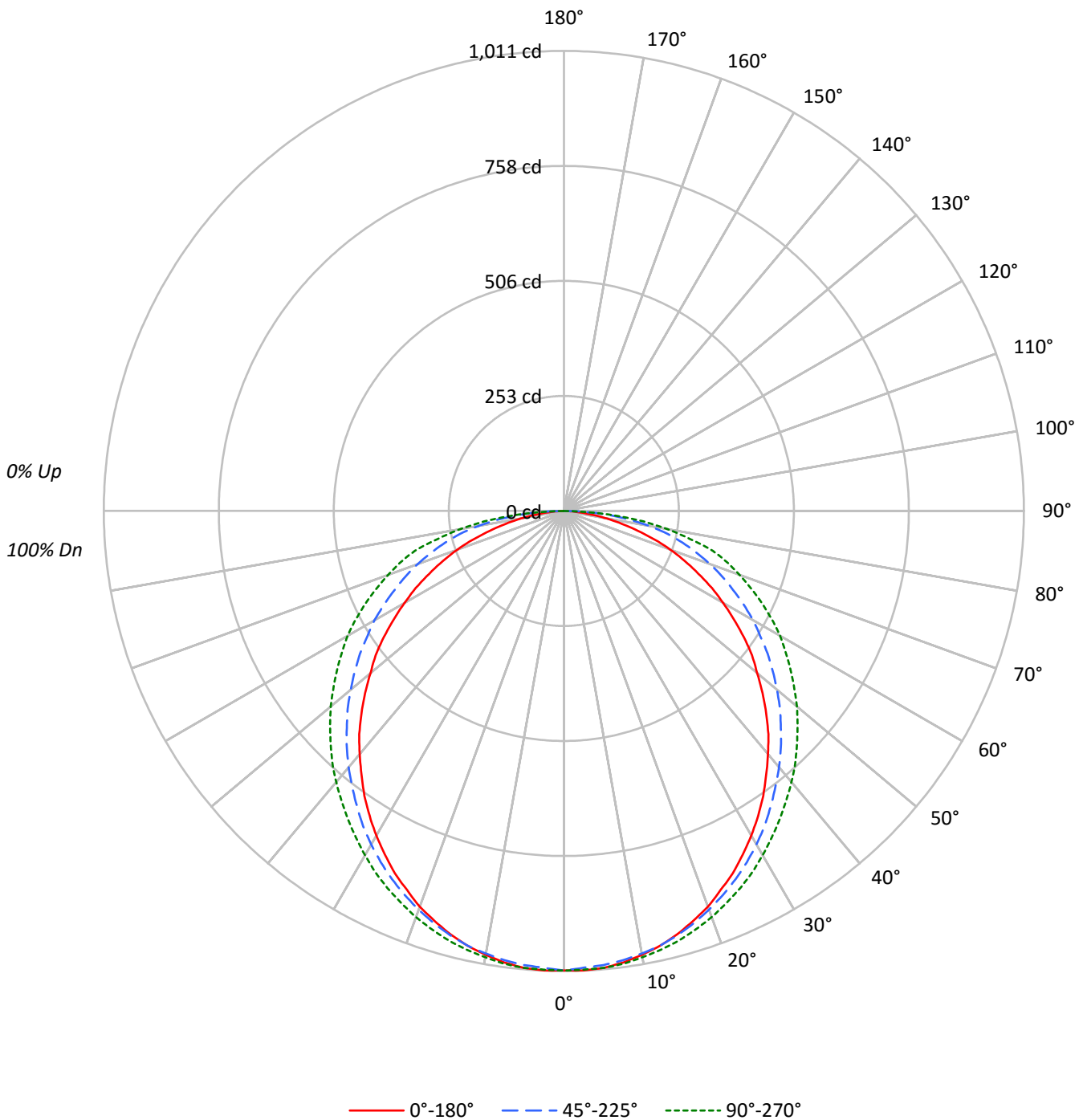
Lumens per Lamp: N/A
Luminaire Lumens: 3062.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27.9
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°	1359	1359	1359
5°	1361	1353	1361
10°	1353	1349	1360
15°	1342	1344	1361
20°	1325	1335	1360
25°	1305	1326	1359
30°	1280	1315	1357
35°	1255	1302	1358
40°	1226	1292	1367
45°	1197	1284	1378
50°	1161	1280	1399
55°	1132	1282	1427
60°	1088	1293	1476
65°	1038	1307	1530
70°	983	1347	1614
75°	876	1405	1764
80°	748	1488	1802
85°	533	1474	1726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.6	3.1
10°-20°	273.3	8.9
20°-30°	412.7	13.5
30°-40°	497.4	16.2
40°-50°	522.2	17.1
50°-60°	488.6	16.0
60°-70°	403.5	13.2
70°-80°	274.9	9.0
80°-90°	93.8	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°	781.6	25.5
0°-40°	1279.0	41.8
0°-60°	2289.8	74.8
0°-90°	3062.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3062.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1010	1010	1010	1010	1010	
5°	1008	1007	1002	1008	1008	96
15°	963	964	965	975	977	271
25°	879	883	893	910	915	404
35°	764	772	792	819	827	477
45°	629	642	675	711	724	485
55°	483	502	547	591	608	431
65°	326	354	410	462	480	323
75°	169	207	270	321	339	180
85°	34	68	96	108	112	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1009.8	1009.8	1009.8	1009.8	1009.8
2.5°	1010.8	1009.8	1004.7	1009.8	1008.8
5°	1007.8	1006.8	1001.7	1007.8	1007.8
7.5°	1000.7	1000.7	995.6	1002.7	1003.7
10°	990.5	990.5	987.5	995.6	995.6
12.5°	978.3	978.3	978.3	986.5	987.5
15°	963.1	964.1	965.1	975.3	977.3
17.5°	944.8	946.8	949.9	962.1	964.1
20°	925.5	927.5	932.6	946.8	949.9
22.5°	901.1	906.2	913.3	929.6	932.6
25°	878.8	882.8	893.0	910.3	915.3
27.5°	851.3	857.4	870.6	888.9	896.0
30°	823.9	830.0	846.3	867.6	873.7
32.5°	794.4	803.6	820.9	843.2	850.3
35°	764.0	772.1	792.4	818.8	827.0
37.5°	730.4	741.6	764.0	792.4	802.6
40°	697.9	710.1	735.5	766.0	778.2
42.5°	665.4	677.6	706.1	740.6	752.8
45°	628.9	642.1	674.6	711.1	724.3
47.5°	592.3	608.5	644.1	682.7	696.9
50°	554.7	573.0	611.6	652.2	668.5
52.5°	521.2	538.4	579.1	622.8	638.0
55°	482.6	501.9	546.6	591.3	608.5
57.5°	442.9	464.3	512.0	560.8	578.1
60°	404.3	427.7	480.5	529.3	548.6
62.5°	366.7	390.1	445.0	495.8	515.1
65°	326.1	353.5	410.4	462.2	480.5
67.5°	287.5	317.0	376.9	427.7	446.0
70°	249.9	278.4	342.4	392.1	410.4
72.5°	209.3	241.8	305.8	357.6	376.9
75°	168.6	207.2	270.2	321.0	339.3
77.5°	131.1	170.7	233.7	275.3	284.5
80°	96.5	137.1	192.0	221.5	232.6
82.5°	62.0	102.6	146.3	167.6	176.8
85°	34.5	68.1	95.5	107.7	111.8
87.5°	14.2	29.5	38.6	43.7	43.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)