

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: P313875

Luminaire Tested: **24FCZ2-35-UNV-L83050-CP125-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: P313875
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-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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

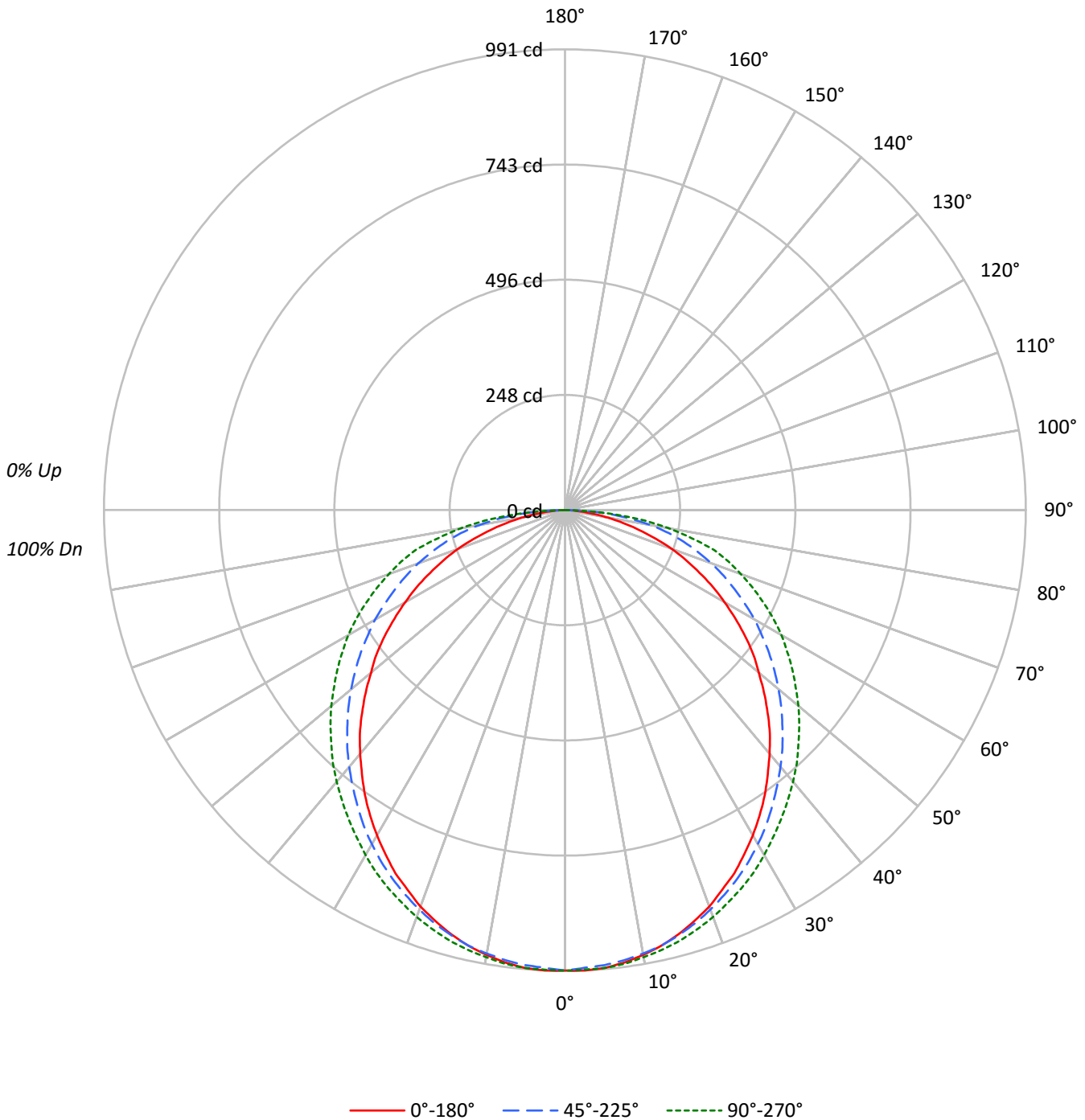
Lumens per Lamp: N/A
Luminaire Lumens: 3003.0 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1333	1333	1333
5°	1335	1327	1335
10°	1327	1323	1334
15°	1316	1318	1335
20°	1300	1310	1334
25°	1279	1300	1333
30°	1255	1290	1331
35°	1231	1276	1332
40°	1202	1267	1340
45°	1173	1259	1352
50°	1139	1256	1372
55°	1110	1257	1400
60°	1067	1268	1448
65°	1018	1281	1500
70°	964	1321	1583
75°	860	1378	1730
80°	734	1459	1768
85°	523	1447	1692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.7	3.1
10°-20°	268.0	8.9
20°-30°	404.8	13.5
30°-40°	487.9	16.2
40°-50°	512.2	17.1
50°-60°	479.2	16.0
60°-70°	395.7	13.2
70°-80°	269.6	9.0
80°-90°	92.0	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°	766.5	25.5
0°-40°	1254.4	41.8
0°-60°	2245.7	74.8
0°-90°	3003.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3003.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	988	987	982	988	988	94
15°	944	946	946	956	958	266
25°	862	866	876	893	898	397
35°	749	757	777	803	811	468
45°	617	630	662	697	710	476
55°	473	492	536	580	597	422
65°	320	347	402	453	471	317
75°	165	203	265	315	333	176
85°	34	67	94	106	110	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	990.4	990.4	990.4	990.4	990.4
2.5°	991.4	990.4	985.4	990.4	989.4
5°	988.4	987.4	982.4	988.4	988.4
7.5°	981.4	981.4	976.4	983.4	984.4
10°	971.4	971.4	968.4	976.4	976.4
12.5°	959.5	959.5	959.5	967.4	968.4
15°	944.5	945.5	946.5	956.5	958.5
17.5°	926.6	928.6	931.6	943.5	945.5
20°	907.7	909.7	914.6	928.6	931.6
22.5°	883.8	888.7	895.7	911.7	914.6
25°	861.8	865.8	875.8	892.7	897.7
27.5°	834.9	840.9	853.9	871.8	878.8
30°	808.0	814.0	830.0	850.9	856.9
32.5°	779.1	788.1	805.0	827.0	833.9
35°	749.2	757.2	777.1	803.1	811.0
37.5°	716.4	727.3	749.2	777.1	787.1
40°	684.5	696.4	721.4	751.2	763.2
42.5°	652.6	664.6	692.5	726.3	738.3
45°	616.7	629.7	661.6	697.4	710.4
47.5°	580.9	596.8	631.7	669.5	683.5
50°	544.0	561.9	599.8	639.7	655.6
52.5°	511.1	528.1	567.9	610.8	625.7
55°	473.3	492.2	536.0	579.9	596.8
57.5°	434.4	455.3	502.2	550.0	566.9
60°	396.5	419.5	471.3	519.1	538.0
62.5°	359.7	382.6	436.4	486.2	505.1
65°	319.8	346.7	402.5	453.3	471.3
67.5°	282.0	310.9	369.6	419.5	437.4
70°	245.1	273.0	335.8	384.6	402.5
72.5°	205.2	237.1	299.9	350.7	369.6
75°	165.4	203.3	265.0	314.8	332.8
77.5°	128.5	167.4	229.2	270.0	279.0
80°	94.7	134.5	188.3	217.2	228.2
82.5°	60.8	100.6	143.5	164.4	173.4
85°	33.9	66.8	93.7	105.6	109.6
87.5°	13.9	28.9	37.9	42.8	42.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)