

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: P310644

Luminaire Tested: **24FCZ2-35-UNV-L82765-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: P310644
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-L82765-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: 3000.0 lumens
Efficiency: N/A
Efficacy: 107.9 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

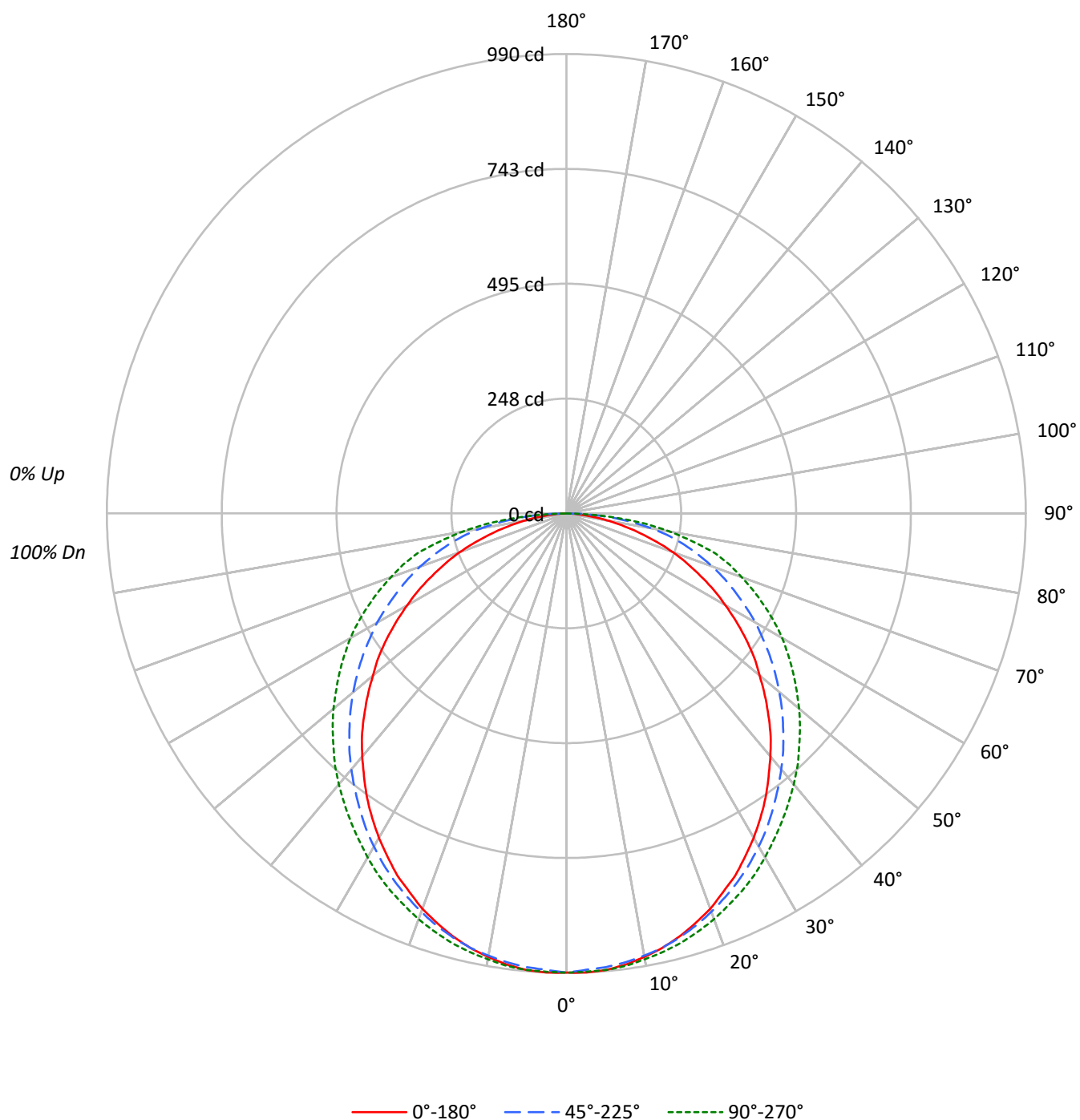
Input Watts (W): 27.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1331	1331	1331
5°	1334	1326	1334
10°	1326	1322	1333
15°	1314	1317	1334
20°	1298	1308	1332
25°	1278	1299	1331
30°	1254	1288	1330
35°	1229	1275	1331
40°	1201	1266	1339
45°	1172	1258	1350
50°	1138	1254	1371
55°	1109	1256	1399
60°	1066	1267	1446
65°	1017	1280	1499
70°	963	1319	1582
75°	859	1377	1728
80°	733	1457	1766
85°	522	1445	1690



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.6	3.1
10°-20°	267.7	8.9
20°-30°	404.4	13.5
30°-40°	487.4	16.2
40°-50°	511.7	17.1
50°-60°	478.7	16.0
60°-70°	395.3	13.2
70°-80°	269.4	9.0
80°-90°	91.9	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°	765.7	25.5
0°-40°	1253.1	41.8
0°-60°	2243.5	74.8
0°-90°	3000.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3000.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	989	989	989	989	989	
5°	987	986	981	987	987	94
15°	944	945	946	956	958	266
25°	861	865	875	892	897	396
35°	748	756	776	802	810	468
45°	616	629	661	697	710	475
55°	473	492	536	579	596	422
65°	320	346	402	453	471	317
75°	165	203	265	314	332	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°	989.4	989.4	989.4	989.4	989.4
2.5°	990.4	989.4	984.4	989.4	988.4
5°	987.4	986.4	981.4	987.4	987.4
7.5°	980.4	980.4	975.4	982.4	983.4
10°	970.5	970.5	967.5	975.4	975.4
12.5°	958.5	958.5	958.5	966.5	967.5
15°	943.6	944.6	945.6	955.5	957.5
17.5°	925.7	927.7	930.6	942.6	944.6
20°	906.8	908.8	913.7	927.7	930.6
22.5°	882.9	887.8	894.8	910.7	913.7
25°	861.0	865.0	874.9	891.8	896.8
27.5°	834.1	840.1	853.0	870.9	877.9
30°	807.2	813.2	829.1	850.0	856.0
32.5°	778.4	787.3	804.2	826.1	833.1
35°	748.5	756.5	776.4	802.2	810.2
37.5°	715.7	726.6	748.5	776.4	786.3
40°	683.8	695.7	720.6	750.5	762.4
42.5°	652.0	663.9	691.8	725.6	737.6
45°	616.1	629.1	660.9	696.7	709.7
47.5°	580.3	596.2	631.0	668.9	682.8
50°	543.5	561.4	599.2	639.0	654.9
52.5°	510.6	527.5	567.3	610.1	625.1
55°	472.8	491.7	535.5	579.3	596.2
57.5°	434.0	454.9	501.7	549.4	566.4
60°	396.1	419.0	470.8	518.6	537.5
62.5°	359.3	382.2	436.0	485.7	504.6
65°	319.5	346.4	402.1	452.9	470.8
67.5°	281.7	310.5	369.3	419.0	437.0
70°	244.9	272.7	335.4	384.2	402.1
72.5°	205.0	236.9	299.6	350.4	369.3
75°	165.2	203.1	264.8	314.5	332.4
77.5°	128.4	167.2	228.9	269.7	278.7
80°	94.6	134.4	188.1	217.0	227.9
82.5°	60.7	100.5	143.3	164.2	173.2
85°	33.8	66.7	93.6	105.5	109.5
87.5°	13.9	28.9	37.8	42.8	42.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)