

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: P310605

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-CP125-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: P310605
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: 24FCZ2-35HE-UNV-L82765-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 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: 3277.0 lumens
Efficiency: N/A
Efficacy: 122.7 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

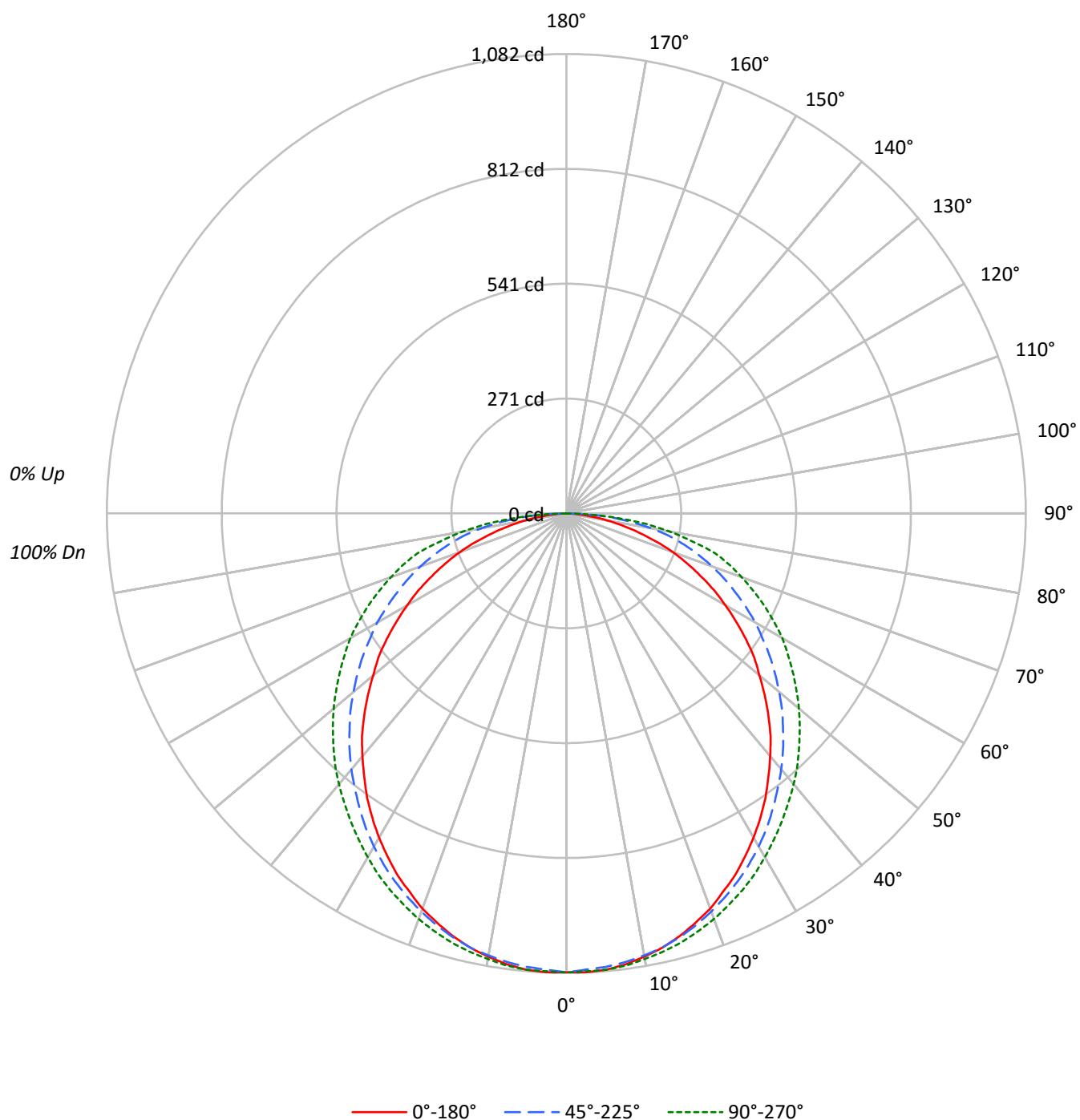
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1454	1454	1454
5°	1457	1448	1457
10°	1448	1444	1456
15°	1436	1439	1457
20°	1418	1429	1456
25°	1396	1419	1454
30°	1370	1407	1453
35°	1343	1393	1454
40°	1312	1383	1463
45°	1281	1374	1475
50°	1243	1370	1497
55°	1211	1372	1528
60°	1164	1384	1580
65°	1111	1398	1637
70°	1052	1441	1728
75°	938	1503	1888
80°	800	1592	1929
85°	571	1578	1846



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.3	3.1
10°-20°	292.5	8.9
20°-30°	441.7	13.5
30°-40°	532.4	16.2
40°-50°	558.9	17.1
50°-60°	522.9	16.0
60°-70°	431.8	13.2
70°-80°	294.3	9.0
80°-90°	100.3	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°	836.4	25.5
0°-40°	1368.8	41.8
0°-60°	2450.6	74.8
0°-90°	3277.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3277.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1081	1081	1081	1081	1081	
5°	1079	1078	1072	1079	1079	102
15°	1031	1032	1033	1044	1046	291
25°	940	945	956	974	980	433
35°	818	826	848	876	885	511
45°	673	687	722	761	775	519
55°	516	537	585	633	651	461
65°	349	378	439	495	514	346
75°	180	222	289	344	363	192
85°	37	73	102	115	120	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1080.7	1080.7	1080.7	1080.7	1080.7
2.5°	1081.8	1080.7	1075.3	1080.7	1079.6
5°	1078.6	1077.5	1072.0	1078.6	1078.6
7.5°	1070.9	1070.9	1065.5	1073.1	1074.2
10°	1060.1	1060.1	1056.8	1065.5	1065.5
12.5°	1047.0	1047.0	1047.0	1055.7	1056.8
15°	1030.7	1031.8	1032.9	1043.8	1045.9
17.5°	1011.1	1013.3	1016.6	1029.6	1031.8
20°	990.5	992.7	998.1	1013.3	1016.6
22.5°	964.4	969.8	977.4	994.8	998.1
25°	940.5	944.8	955.7	974.2	979.6
27.5°	911.1	917.6	931.8	951.3	959.0
30°	881.8	888.3	905.7	928.5	935.0
32.5°	850.2	860.0	878.5	902.4	910.0
35°	817.6	826.3	848.1	876.3	885.0
37.5°	781.7	793.7	817.6	848.1	858.9
40°	746.9	760.0	787.2	819.8	832.8
42.5°	712.1	725.2	755.6	792.6	805.7
45°	673.0	687.1	721.9	761.1	775.2
47.5°	633.9	651.3	689.3	730.6	745.9
50°	593.6	613.2	654.5	698.0	715.4
52.5°	557.8	576.2	619.7	666.5	682.8
55°	516.4	537.1	584.9	632.8	651.3
57.5°	474.0	496.9	548.0	600.2	618.6
60°	432.7	457.7	514.3	566.5	587.1
62.5°	392.5	417.5	476.2	530.6	551.2
65°	349.0	378.4	439.2	494.7	514.3
67.5°	307.7	339.2	403.4	457.7	477.3
70°	267.5	297.9	366.4	419.7	439.2
72.5°	224.0	258.8	327.3	382.7	403.4
75°	180.5	221.8	289.2	343.6	363.1
77.5°	140.3	182.7	250.1	294.6	304.4
80°	103.3	146.8	205.5	237.0	249.0
82.5°	66.3	109.8	156.6	179.4	189.2
85°	37.0	72.8	102.2	115.2	119.6
87.5°	15.2	31.5	41.3	46.8	46.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)