

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: P310589

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-CA125-W2A-U-2700K**

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: P310589
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-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 2700K 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: 2942.0 lumens
Efficiency: N/A
Efficacy: 113.2 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

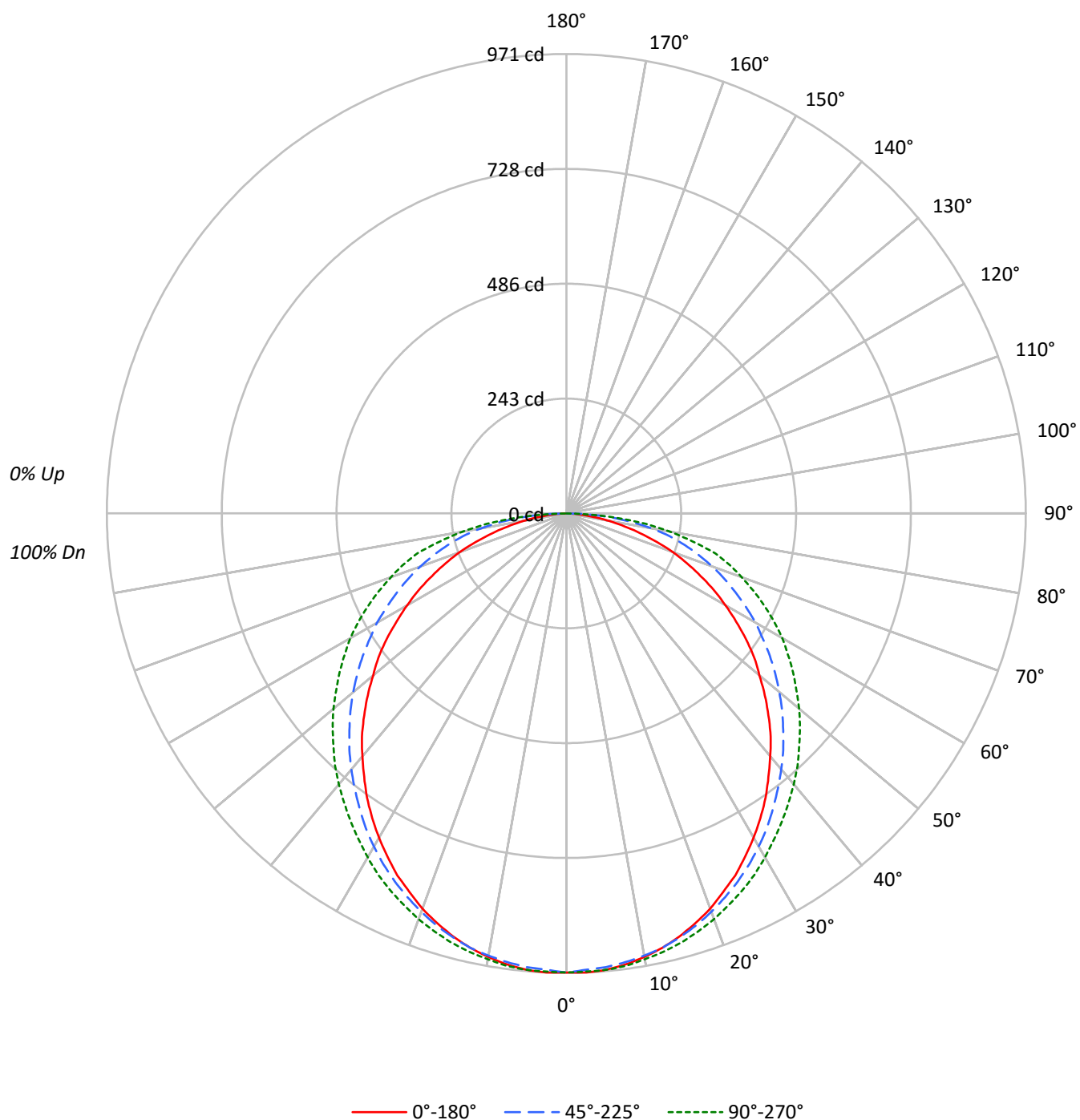
Input Watts (W): 26
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1305	1305	1305
5°	1308	1300	1308
10°	1300	1296	1307
15°	1289	1292	1308
20°	1273	1283	1307
25°	1253	1274	1306
30°	1230	1263	1304
35°	1206	1251	1305
40°	1178	1241	1313
45°	1150	1233	1324
50°	1116	1230	1344
55°	1088	1232	1372
60°	1045	1242	1418
65°	997	1255	1470
70°	945	1294	1551
75°	842	1350	1695
80°	718	1430	1732
85°	513	1417	1658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.8	3.1
10°-20°	262.6	8.9
20°-30°	396.6	13.5
30°-40°	478.0	16.2
40°-50°	501.8	17.1
50°-60°	469.4	16.0
60°-70°	387.6	13.2
70°-80°	264.1	9.0
80°-90°	90.1	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°	750.9	25.5
0°-40°	1228.9	41.8
0°-60°	2200.1	74.8
0°-90°	2942.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2942.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	968	967	962	968	968	92
15°	925	926	927	937	939	261
25°	844	848	858	875	880	388
35°	734	742	761	787	794	459
45°	604	617	648	683	696	466
55°	464	482	525	568	585	414
65°	313	340	394	444	462	311
75°	162	199	260	308	326	173
85°	33	65	92	104	107	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	970.2	970.2	970.2	970.2	970.2
2.5°	971.2	970.2	965.4	970.2	969.3
5°	968.3	967.3	962.4	968.3	968.3
7.5°	961.5	961.5	956.6	963.4	964.4
10°	951.7	951.7	948.8	956.6	956.6
12.5°	940.0	940.0	940.0	947.8	948.8
15°	925.3	926.3	927.3	937.1	939.0
17.5°	907.8	909.7	912.7	924.4	926.3
20°	889.2	891.2	896.1	909.7	912.7
22.5°	865.8	870.7	877.5	893.1	896.1
25°	844.3	848.2	858.0	874.6	879.5
27.5°	818.0	823.8	836.5	854.1	860.9
30°	791.6	797.5	813.1	833.6	839.4
32.5°	763.3	772.1	788.7	810.2	817.0
35°	734.0	741.8	761.4	786.7	794.5
37.5°	701.8	712.6	734.0	761.4	771.1
40°	670.6	682.3	706.7	736.0	747.7
42.5°	639.3	651.1	678.4	711.6	723.3
45°	604.2	616.9	648.1	683.3	696.0
47.5°	569.1	584.7	618.8	655.9	669.6
50°	533.0	550.5	587.6	626.7	642.3
52.5°	500.7	517.3	556.4	598.4	613.0
55°	463.6	482.2	525.1	568.1	584.7
57.5°	425.6	446.1	492.0	538.8	555.4
60°	388.5	410.9	461.7	508.5	527.1
62.5°	352.4	374.8	427.5	476.3	494.9
65°	313.3	339.7	394.3	444.1	461.7
67.5°	276.2	304.5	362.1	410.9	428.5
70°	240.1	267.5	328.9	376.8	394.3
72.5°	201.1	232.3	293.8	343.6	362.1
75°	162.0	199.1	259.6	308.4	326.0
77.5°	125.9	164.0	224.5	264.5	273.3
80°	92.7	131.8	184.5	212.8	223.5
82.5°	59.5	98.6	140.6	161.1	169.8
85°	33.2	65.4	91.8	103.5	107.4
87.5°	13.7	28.3	37.1	42.0	42.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)