

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: P311273

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-S-CP125-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: P311273
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
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-S-CP125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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: 3031.0 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

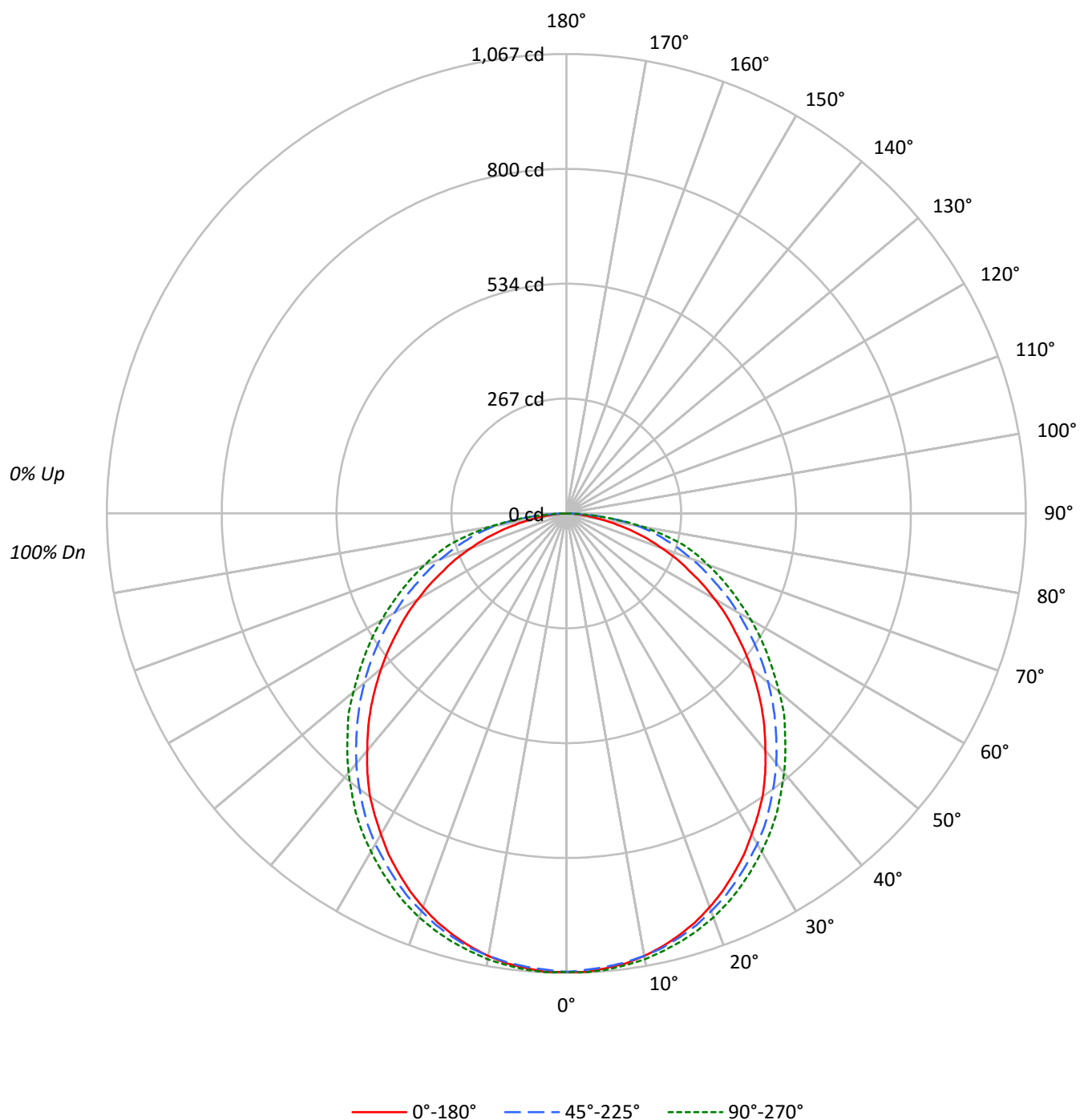
Input Watts (W): 26
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1433	1433	1433
5°	1432	1428	1437
10°	1426	1426	1436
15°	1412	1419	1434
20°	1394	1407	1430
25°	1368	1394	1421
30°	1337	1378	1409
35°	1308	1355	1398
40°	1263	1333	1382
45°	1222	1306	1367
50°	1175	1282	1350
55°	1122	1258	1337
60°	1070	1238	1334
65°	1002	1217	1343
70°	928	1223	1378
75°	831	1246	1457
80°	671	1320	1425
85°	505	1159	1130



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.8	3.3
10°-20°	288.0	9.5
20°-30°	433.0	14.3
30°-40°	515.8	17.0
40°-50°	527.9	17.4
50°-60°	475.2	15.7
60°-70°	373.2	12.3
70°-80°	242.2	8.0
80°-90°	74.9	2.5
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°	821.8	27.1
0°-40°	1337.6	44.1
0°-60°	2340.7	77.2
0°-90°	3031.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3031.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1060	1062	1057	1063	1064	101
15°	1014	1017	1019	1027	1029	286
25°	921	929	939	954	957	424
35°	796	806	825	845	851	497
45°	642	658	686	712	718	495
55°	478	500	536	564	570	429
65°	315	339	382	414	422	313
75°	160	191	240	272	280	169
85°	33	61	75	73	73	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1064.8	1064.8	1064.8	1064.8	1064.8
2.5°	1065.8	1065.8	1061.0	1065.8	1066.7
5°	1060.0	1061.9	1057.1	1062.9	1063.8
7.5°	1054.2	1054.2	1051.3	1057.1	1058.1
10°	1043.6	1044.6	1043.6	1050.4	1051.3
12.5°	1030.2	1032.1	1033.0	1039.8	1040.7
15°	1013.8	1016.7	1018.6	1027.3	1029.2
17.5°	995.5	998.4	1003.2	1012.8	1014.7
20°	973.3	977.2	983.0	995.5	998.4
22.5°	949.3	953.1	962.8	974.3	979.1
25°	921.4	929.1	938.7	954.1	957.0
27.5°	893.4	900.2	912.7	929.1	932.9
30°	860.7	871.3	886.7	903.1	906.9
32.5°	828.9	839.5	857.8	875.1	880.0
35°	796.2	805.8	825.1	845.3	851.1
37.5°	758.7	771.2	792.3	812.6	818.3
40°	719.2	734.6	758.7	779.8	786.6
42.5°	681.6	698.0	722.1	745.2	752.9
45°	642.2	657.6	686.4	712.4	718.2
47.5°	601.7	619.1	649.9	675.9	685.5
50°	561.3	579.6	612.3	639.3	645.0
52.5°	520.9	540.1	574.8	603.6	606.5
55°	478.5	499.7	536.3	564.2	570.0
57.5°	440.0	458.3	497.7	526.6	533.4
60°	397.6	417.8	460.2	487.2	495.8
62.5°	357.2	378.4	422.7	449.6	457.3
65°	314.8	338.9	382.2	414.0	421.7
67.5°	278.2	301.3	347.6	378.4	386.1
70°	235.9	261.9	311.0	342.7	350.4
72.5°	199.3	226.2	275.3	306.2	317.7
75°	159.8	190.6	239.7	272.5	280.2
77.5°	121.3	156.9	207.0	232.0	232.0
80°	86.6	124.2	170.4	182.0	183.9
82.5°	56.8	93.4	126.1	125.2	125.2
85°	32.7	60.7	75.1	73.2	73.2
87.5°	12.5	25.0	27.0	27.0	26.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)