

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: P307991

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP125-W2A-U-4000K**

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: P307991
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L82765-S-CP125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4000K 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: 3664.0 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

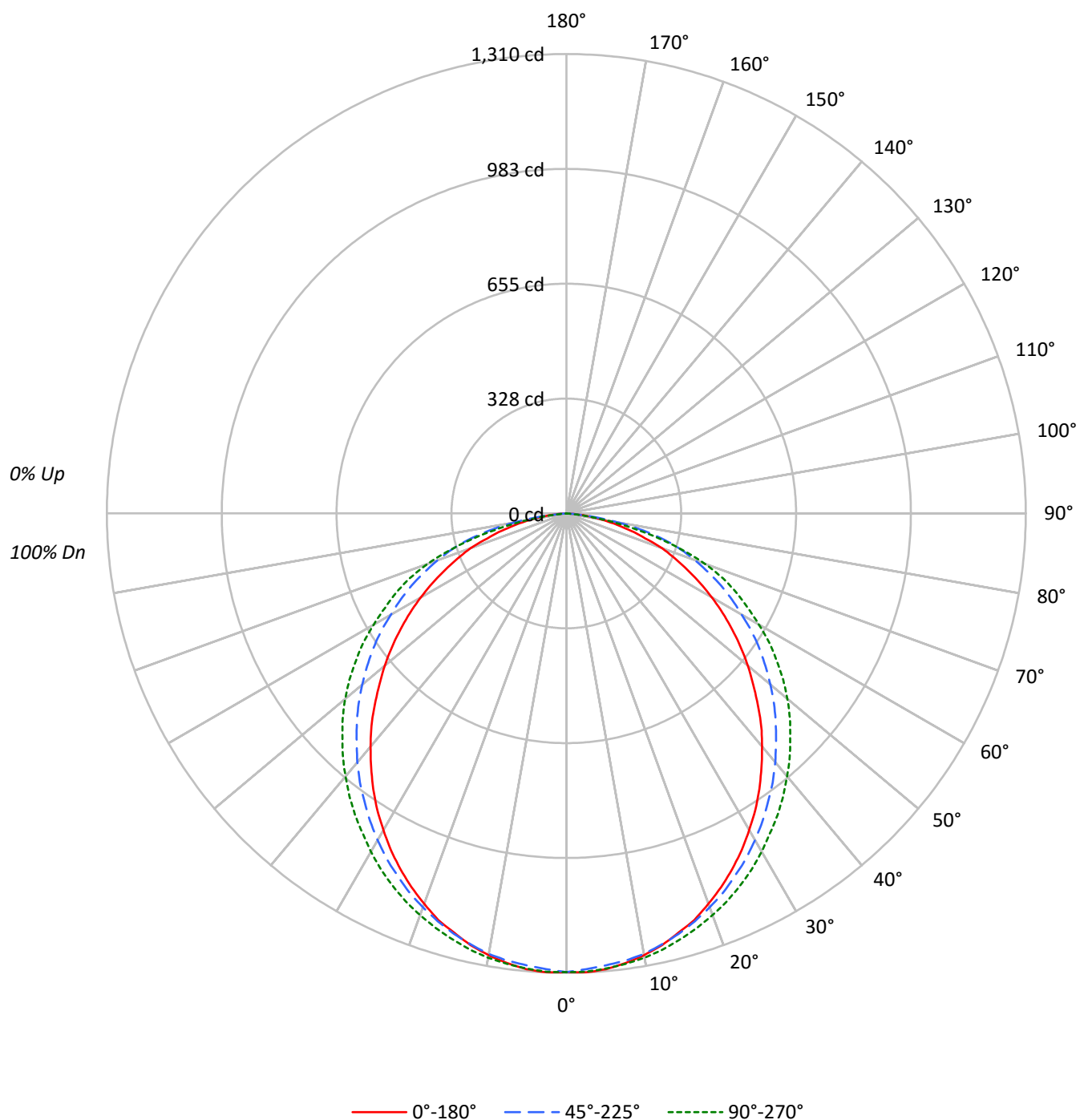
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3520	3520	3520
5°	3524	3494	3518
10°	3495	3485	3515
15°	3446	3457	3502
20°	3392	3423	3491
25°	3323	3382	3479
30°	3240	3342	3460
35°	3151	3294	3449
40°	3051	3255	3440
45°	2938	3215	3436
50°	2829	3179	3445
55°	2710	3154	3435
60°	2581	3109	3412
65°	2429	3100	3412
70°	2287	3073	3316
75°	1983	3003	2833
80°	1604	2421	1886
85°	1065	840	562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.5	3.4
10°-20°	351.5	9.6
20°-30°	527.2	14.4
30°-40°	628.9	17.2
40°-50°	650.2	17.7
50°-60°	593.6	16.2
60°-70°	467.1	12.7
70°-80°	271.9	7.4
80°-90°	50.1	1.4
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°	1002.2	27.4
0°-40°	1631.1	44.5
0°-60°	2874.8	78.5
0°-90°	3664.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3664.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1308	1308	1308	1308	1308	
5°	1304	1301	1294	1304	1302	124
15°	1237	1239	1241	1257	1257	349
25°	1119	1124	1139	1166	1172	515
35°	959	972	1003	1041	1050	600
45°	772	798	845	892	903	596
55°	578	609	672	721	732	517
65°	382	422	487	525	536	379
75°	191	236	289	283	272	203
85°	34	49	27	22	18	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1308.0	1308.0	1308.0	1308.0	1308.0
2.5°	1309.8	1306.2	1300.7	1309.8	1308.0
5°	1304.4	1300.7	1293.5	1304.4	1302.5
7.5°	1293.5	1289.8	1286.2	1297.1	1295.3
10°	1278.9	1277.1	1275.3	1288.0	1286.2
12.5°	1260.8	1260.8	1258.9	1273.5	1273.5
15°	1237.1	1239.0	1240.8	1257.1	1257.1
17.5°	1215.3	1213.5	1219.0	1237.1	1239.0
20°	1184.5	1188.1	1195.4	1217.2	1219.0
22.5°	1153.6	1157.2	1169.9	1191.7	1197.2
25°	1119.1	1124.5	1139.0	1166.3	1171.7
27.5°	1082.7	1090.0	1110.0	1139.0	1144.5
30°	1042.8	1053.7	1075.5	1108.2	1113.6
32.5°	1002.8	1013.7	1040.9	1073.6	1080.9
35°	959.2	971.9	1002.8	1040.9	1050.0
37.5°	913.8	930.1	966.5	1004.6	1015.5
40°	868.4	886.5	926.5	966.5	979.2
42.5°	822.9	841.1	884.7	930.1	942.8
45°	772.1	797.5	844.7	892.0	902.9
47.5°	723.0	750.3	803.0	850.2	864.7
50°	675.8	703.0	759.4	808.4	822.9
52.5°	626.7	655.8	715.8	766.6	779.3
55°	577.7	608.6	672.2	721.2	732.1
57.5°	528.6	561.3	626.7	674.0	686.7
60°	479.6	514.1	577.7	624.9	634.0
62.5°	430.5	466.9	532.3	574.1	583.1
65°	381.5	421.5	486.9	525.0	535.9
67.5°	334.3	374.2	437.8	474.1	483.2
70°	290.7	327.0	390.6	417.8	421.5
72.5°	236.2	281.6	343.3	357.9	348.8
75°	190.7	236.2	288.8	283.4	272.5
77.5°	145.3	190.7	225.3	207.1	192.6
80°	103.5	149.0	156.2	129.0	121.7
82.5°	67.2	103.5	87.2	67.2	54.5
85°	34.5	49.0	27.2	21.8	18.2
87.5°	10.9	7.3	3.6	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)