

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: P309063

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-CA125-W2A-U-4500K**

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: P309063
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-39HE-UNV-L82765-S-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC 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: 3786.0 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

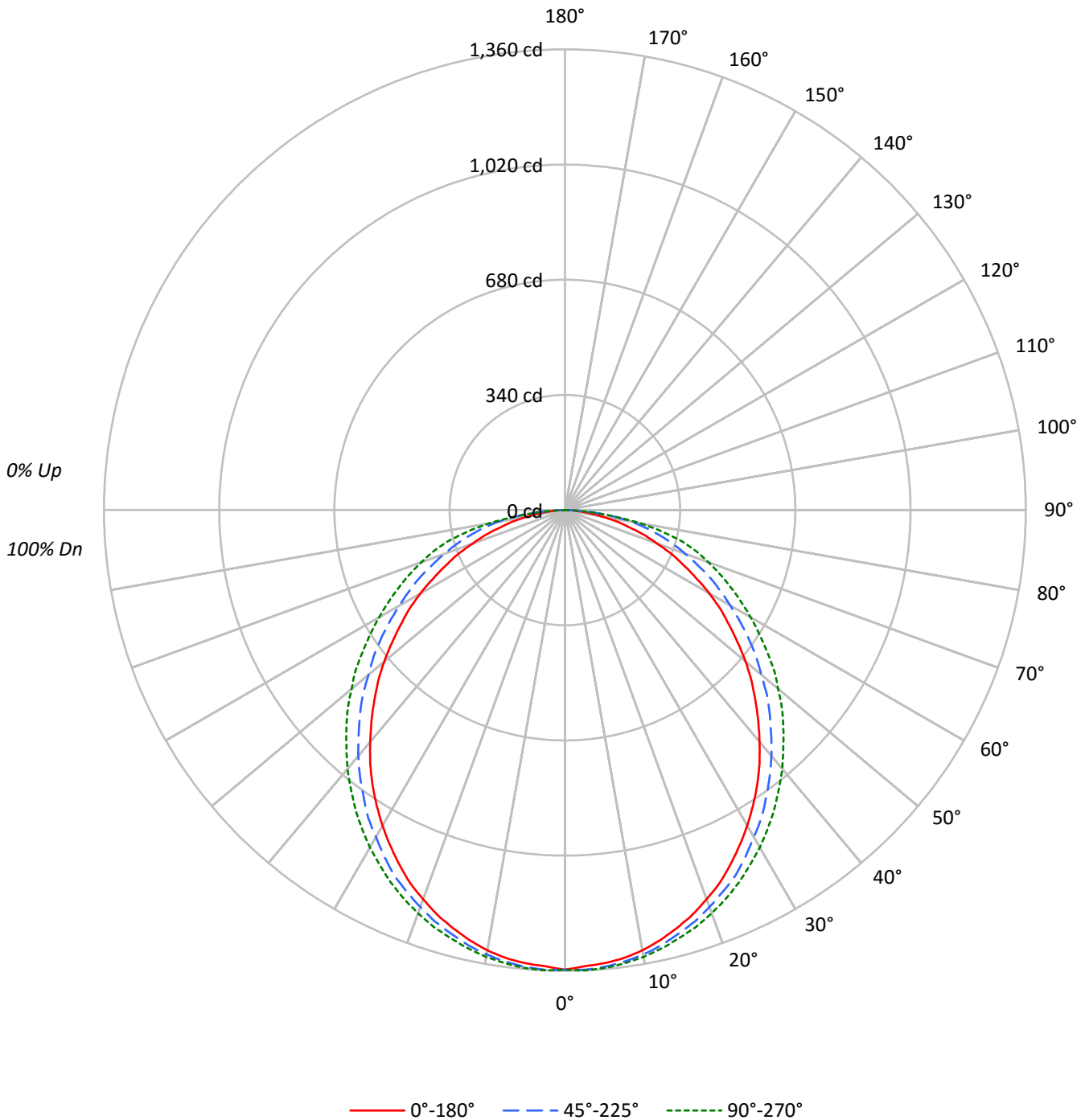
Input Watts (W): 33
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3651	3651	3651
5°	3626	3655	3665
10°	3606	3639	3659
15°	3558	3607	3642
20°	3501	3571	3627
25°	3430	3535	3603
30°	3343	3463	3573
35°	3250	3400	3540
40°	3140	3332	3506
45°	3025	3254	3469
50°	2914	3165	3439
55°	2776	3108	3415
60°	2652	3033	3404
65°	2474	3014	3442
70°	2279	2988	3544
75°	2057	3031	3728
80°	1779	3121	3504
85°	1473	2618	2618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.3	3.4
10°-20°	365.1	9.6
20°-30°	546.3	14.4
30°-40°	646.9	17.1
40°-50°	659.3	17.4
50°-60°	590.9	15.6
60°-70°	462.7	12.2
70°-80°	298.3	7.9
80°-90°	88.1	2.3
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°	1039.7	27.5
0°-40°	1686.6	44.5
0°-60°	2936.9	77.6
0°-90°	3786.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3786.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1357	1357	1357	1357	1357	
5°	1342	1346	1353	1355	1357	127
15°	1277	1284	1295	1305	1307	360
25°	1155	1166	1191	1206	1214	532
35°	989	1002	1035	1067	1078	618
45°	795	813	855	899	912	614
55°	592	611	662	708	728	531
65°	389	412	473	519	540	386
75°	198	228	292	341	359	212
85°	48	65	85	85	85	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1356.6	1356.6	1356.6	1356.6	1356.6
2.5°	1347.8	1351.3	1358.4	1360.2	1360.2
5°	1342.5	1346.0	1353.1	1354.9	1356.6
7.5°	1333.7	1335.4	1344.3	1347.8	1349.6
10°	1319.5	1323.1	1331.9	1337.2	1339.0
12.5°	1300.1	1305.4	1316.0	1323.1	1324.8
15°	1277.2	1284.2	1294.8	1305.4	1307.2
17.5°	1252.4	1259.5	1273.6	1286.0	1289.5
20°	1222.4	1231.2	1247.1	1261.3	1266.6
22.5°	1192.4	1199.4	1218.9	1236.5	1241.8
25°	1155.3	1165.9	1190.6	1206.5	1213.6
27.5°	1116.4	1128.8	1153.5	1174.7	1181.8
30°	1075.8	1088.1	1114.6	1141.1	1150.0
32.5°	1033.4	1047.5	1079.3	1105.8	1114.6
35°	989.2	1001.6	1035.1	1066.9	1077.5
37.5°	943.3	953.9	992.8	1026.3	1036.9
40°	893.8	908.0	948.6	987.5	998.1
42.5°	844.4	860.3	900.9	943.3	953.9
45°	794.9	812.6	855.0	899.1	911.5
47.5°	747.2	761.3	809.0	851.4	869.1
50°	696.0	710.1	756.0	803.7	821.4
52.5°	643.0	662.4	711.9	757.8	779.0
55°	591.8	611.2	662.4	708.4	727.8
57.5°	544.1	560.0	613.0	660.7	680.1
60°	492.8	507.0	563.5	614.7	632.4
62.5°	438.1	459.3	517.6	565.3	586.5
65°	388.6	411.6	473.4	519.3	540.5
67.5°	342.7	363.9	424.0	473.4	496.4
70°	289.7	318.0	379.8	429.2	450.4
72.5°	247.3	272.0	335.6	385.1	408.1
75°	197.8	227.9	291.5	340.9	358.6
77.5°	157.2	187.2	247.3	286.2	295.0
80°	114.8	144.8	201.4	220.8	226.1
82.5°	77.7	106.0	144.8	150.1	151.9
85°	47.7	65.4	84.8	84.8	84.8
87.5°	23.0	26.5	30.0	28.3	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)