

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: P309075

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-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: P309075
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-CP125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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: 3811.0 lumens
Efficiency: N/A
Efficacy: 114.4 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

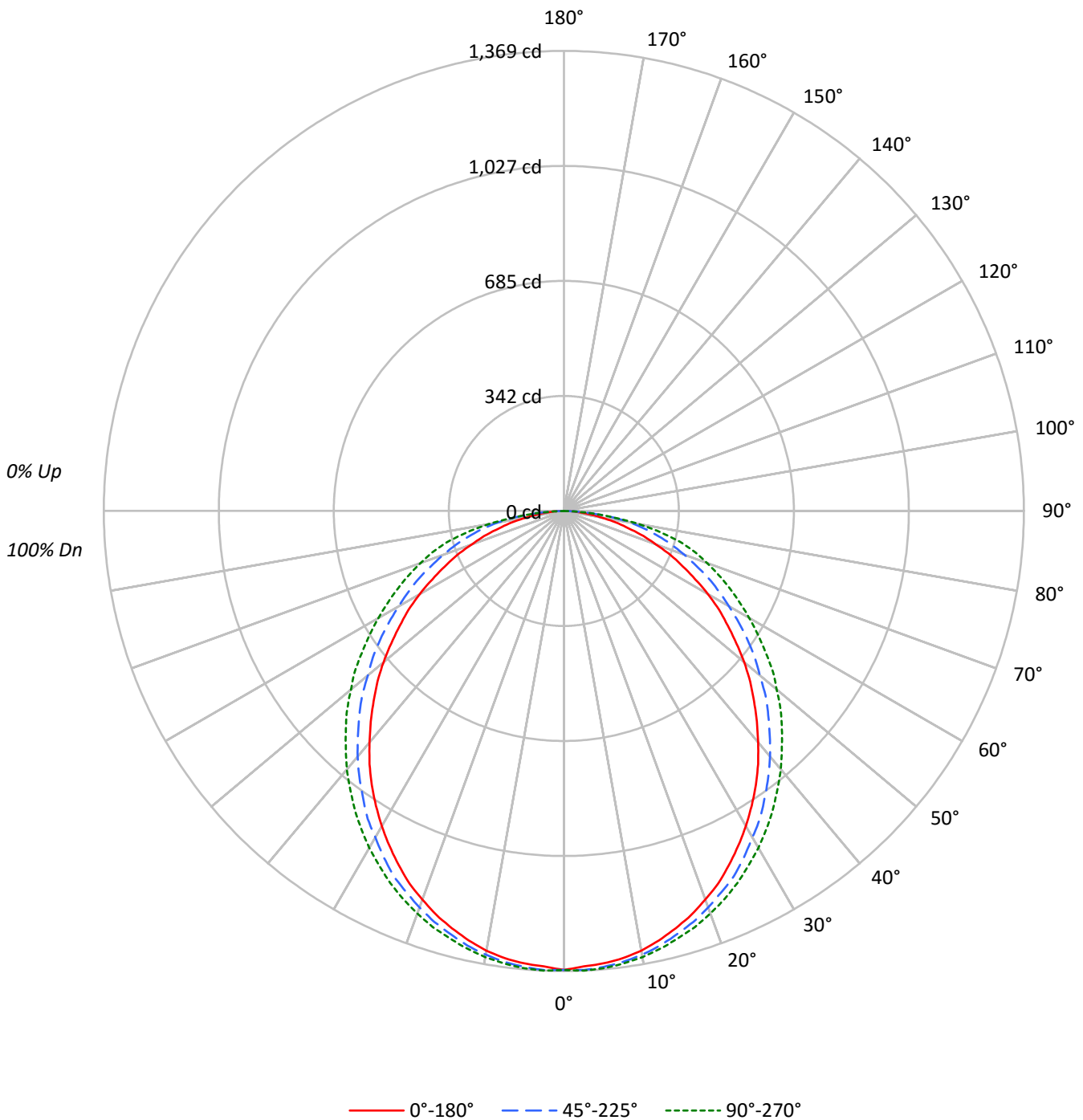
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	3675	3675	3675
5°	3650	3679	3689
10°	3630	3663	3683
15°	3582	3631	3666
20°	3524	3595	3651
25°	3453	3559	3627
30°	3365	3486	3597
35°	3271	3423	3563
40°	3160	3354	3529
45°	3045	3275	3492
50°	2933	3186	3461
55°	2795	3128	3437
60°	2670	3053	3426
65°	2491	3034	3465
70°	2294	3008	3567
75°	2071	3051	3753
80°	1791	3141	3527
85°	1482	2637	2637



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	3.4
10°-20°	367.5	9.6
20°-30°	549.9	14.4
30°-40°	651.2	17.1
40°-50°	663.7	17.4
50°-60°	594.8	15.6
60°-70°	465.7	12.2
70°-80°	300.3	7.9
80°-90°	88.7	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°	1046.6	27.5
0°-40°	1697.8	44.5
0°-60°	2956.3	77.6
0°-90°	3811.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3811.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1366	1366	1366	1366	1366	
5°	1351	1355	1362	1364	1366	128
15°	1286	1293	1303	1314	1316	362
25°	1163	1174	1198	1214	1222	535
35°	996	1008	1042	1074	1085	622
45°	800	818	861	905	918	618
55°	596	615	667	713	733	534
65°	391	414	476	523	544	389
75°	199	229	293	343	361	214
85°	48	66	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°	1365.6	1365.6	1365.6	1365.6	1365.6
2.5°	1356.7	1360.3	1367.4	1369.2	1369.2
5°	1351.4	1354.9	1362.0	1363.8	1365.6
7.5°	1342.5	1344.3	1353.2	1356.7	1358.5
10°	1328.3	1331.8	1340.7	1346.0	1347.8
12.5°	1308.7	1314.0	1324.7	1331.8	1333.6
15°	1285.6	1292.7	1303.4	1314.0	1315.8
17.5°	1260.7	1267.8	1282.0	1294.5	1298.0
20°	1230.5	1239.4	1255.4	1269.6	1274.9
22.5°	1200.2	1207.3	1226.9	1244.7	1250.0
25°	1162.9	1173.6	1198.5	1214.5	1221.6
27.5°	1123.8	1136.2	1161.1	1182.5	1189.6
30°	1082.9	1095.3	1122.0	1148.7	1157.6
32.5°	1040.2	1054.4	1086.4	1113.1	1122.0
35°	995.8	1008.2	1042.0	1074.0	1084.7
37.5°	949.5	960.2	999.3	1033.1	1043.8
40°	899.7	914.0	954.9	994.0	1004.6
42.5°	849.9	865.9	906.8	949.5	960.2
45°	800.2	817.9	860.6	905.1	917.5
47.5°	752.1	766.4	814.4	857.1	874.8
50°	700.6	714.8	761.0	809.0	826.8
52.5°	647.2	666.8	716.6	762.8	784.2
55°	595.7	615.2	666.8	713.0	732.6
57.5°	547.7	563.7	617.0	665.0	684.6
60°	496.1	510.3	567.2	618.8	636.6
62.5°	441.0	462.3	521.0	569.0	590.3
65°	391.2	414.3	476.5	522.8	544.1
67.5°	345.0	366.3	426.8	476.5	499.7
70°	291.6	320.1	382.3	432.1	453.4
72.5°	248.9	273.8	337.8	387.6	410.7
75°	199.2	229.4	293.4	343.2	361.0
77.5°	158.3	188.5	248.9	288.1	296.9
80°	115.6	145.8	202.7	222.3	227.6
82.5°	78.2	106.7	145.8	151.1	152.9
85°	48.0	65.8	85.4	85.4	85.4
87.5°	23.1	26.7	30.2	28.5	28.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)