

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: P309074

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-CP125-W2A-U-5500K**

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: P309074
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-5500K
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: 3801.0 lumens
Efficiency: N/A
Efficacy: 114.1 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

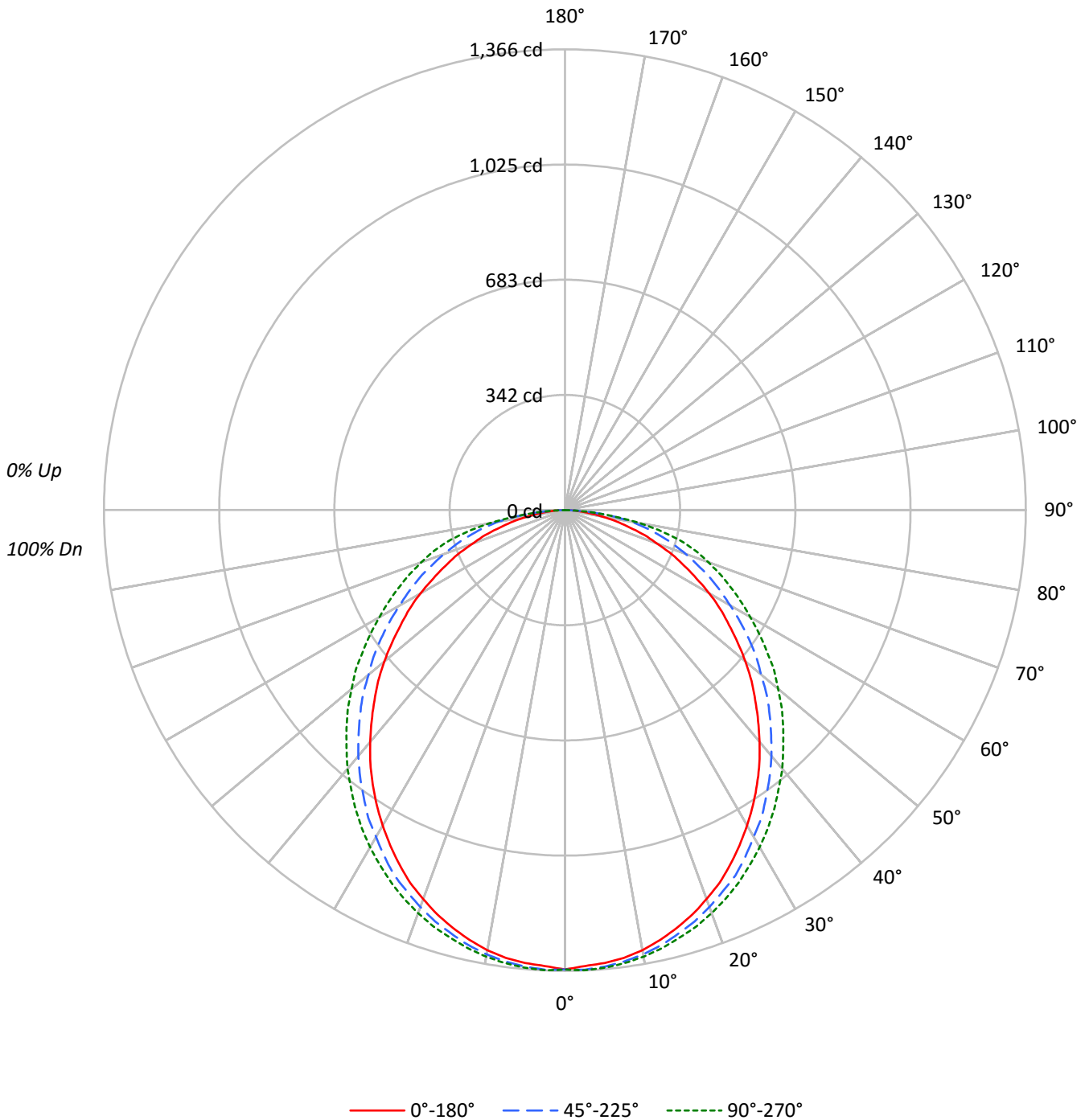
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3665	3665	3665
5°	3641	3670	3679
10°	3620	3654	3673
15°	3572	3621	3656
20°	3514	3586	3641
25°	3444	3549	3618
30°	3356	3477	3587
35°	3262	3414	3554
40°	3152	3345	3520
45°	3037	3267	3483
50°	2925	3177	3453
55°	2787	3120	3428
60°	2663	3045	3417
65°	2485	3026	3456
70°	2288	3000	3558
75°	2065	3042	3743
80°	1787	3133	3518
85°	1479	2628	2628



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.8	3.4
10°-20°	366.6	9.6
20°-30°	548.5	14.4
30°-40°	649.5	17.1
40°-50°	661.9	17.4
50°-60°	593.3	15.6
60°-70°	464.5	12.2
70°-80°	299.5	7.9
80°-90°	88.5	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°	1043.8	27.5
0°-40°	1693.3	44.5
0°-60°	2948.5	77.6
0°-90°	3801.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3801.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1362	1362	1362	1362	1362	
5°	1348	1351	1358	1360	1362	128
15°	1282	1289	1300	1311	1312	362
25°	1160	1170	1195	1211	1218	534
35°	993	1006	1039	1071	1082	621
45°	798	816	858	903	915	616
55°	594	614	665	711	731	533
65°	390	413	475	521	543	388
75°	199	229	293	342	360	213
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°	1362.0	1362.0	1362.0	1362.0	1362.0
2.5°	1353.1	1356.7	1363.8	1365.6	1365.6
5°	1347.8	1351.4	1358.5	1360.2	1362.0
7.5°	1339.0	1340.7	1349.6	1353.1	1354.9
10°	1324.8	1328.3	1337.2	1342.5	1344.3
12.5°	1305.3	1310.6	1321.2	1328.3	1330.1
15°	1282.2	1289.3	1299.9	1310.6	1312.4
17.5°	1257.4	1264.5	1278.7	1291.1	1294.6
20°	1227.2	1236.1	1252.1	1266.2	1271.6
22.5°	1197.1	1204.2	1223.7	1241.4	1246.7
25°	1159.8	1170.5	1195.3	1211.3	1218.4
27.5°	1120.8	1133.2	1158.1	1179.4	1186.4
30°	1080.0	1092.5	1119.1	1145.7	1154.5
32.5°	1037.5	1051.7	1083.6	1110.2	1119.1
35°	993.1	1005.6	1039.2	1071.2	1081.8
37.5°	947.0	957.7	996.7	1030.4	1041.0
40°	897.4	911.6	952.3	991.4	1002.0
42.5°	847.7	863.7	904.5	947.0	957.7
45°	798.1	815.8	858.4	902.7	915.1
47.5°	750.2	764.4	812.2	854.8	872.5
50°	698.7	712.9	759.0	806.9	824.7
52.5°	645.5	665.0	714.7	760.8	782.1
55°	594.1	613.6	665.0	711.2	730.7
57.5°	546.2	562.2	615.4	663.3	682.8
60°	494.8	509.0	565.7	617.2	634.9
62.5°	439.8	461.1	519.6	567.5	588.8
65°	390.2	413.2	475.3	521.4	542.7
67.5°	344.1	365.3	425.6	475.3	498.3
70°	290.8	319.2	381.3	431.0	452.2
72.5°	248.3	273.1	337.0	386.6	409.7
75°	198.6	228.8	292.6	342.3	360.0
77.5°	157.8	188.0	248.3	287.3	296.2
80°	115.3	145.4	202.2	221.7	227.0
82.5°	78.0	106.4	145.4	150.7	152.5
85°	47.9	65.6	85.1	85.1	85.1
87.5°	23.1	26.6	30.1	28.4	28.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)