

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: P309069

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-CP125-W2A-U-3000K**

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: P309069
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-3000K
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: 3451.0 lumens
Efficiency: N/A
Efficacy: 107.2 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

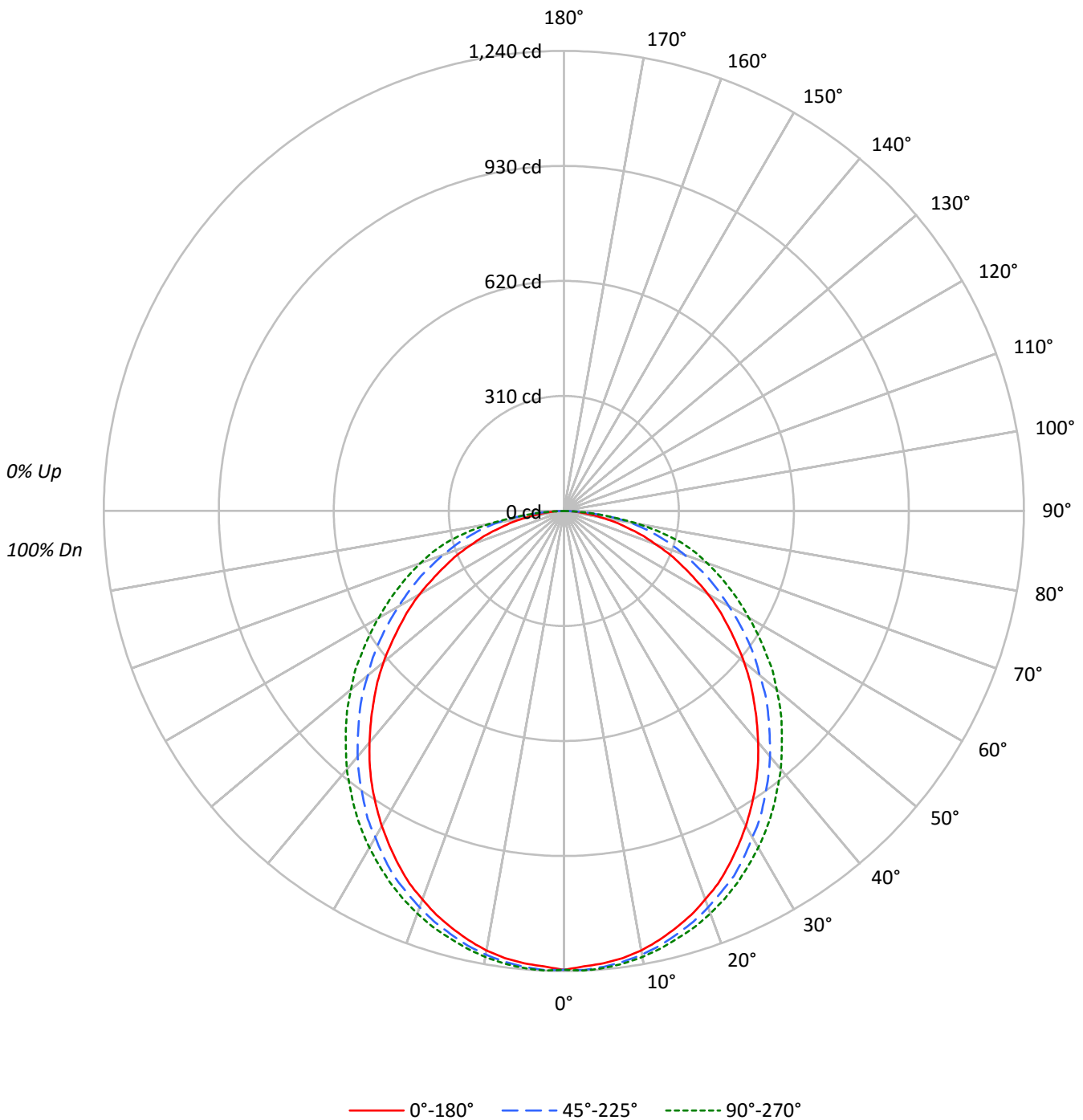
Input Watts (W): 32.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309069

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-S-CP125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P309069

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-S-CP125-W2A-U-3000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3328	3328	3328
5°	3306	3332	3340
10°	3287	3318	3335
15°	3243	3288	3319
20°	3191	3255	3306
25°	3127	3222	3284
30°	3047	3157	3257
35°	2962	3100	3227
40°	2862	3038	3196
45°	2758	2966	3162
50°	2656	2885	3134
55°	2531	2833	3112
60°	2418	2764	3102
65°	2255	2748	3137
70°	2078	2724	3231
75°	1875	2763	3399
80°	1623	2845	3194
85°	1343	2387	2387



TEST NUMBER: P309069

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-S-CP125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.9	3.4
10°-20°	332.8	9.6
20°-30°	498.0	14.4
30°-40°	589.7	17.1
40°-50°	601.0	17.4
50°-60°	538.6	15.6
60°-70°	421.7	12.2
70°-80°	271.9	7.9
80°-90°	80.3	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°	947.7	27.5
0°-40°	1537.4	44.5
0°-60°	2677.0	77.6
0°-90°	3451.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3451.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1224	1227	1233	1235	1237	116
15°	1164	1171	1180	1190	1192	328
25°	1053	1063	1085	1100	1106	485
35°	902	913	944	972	982	564
45°	725	741	779	820	831	560
55°	539	557	604	646	663	484
65°	354	375	432	473	493	352
75°	180	208	266	311	327	193
85°	44	60	77	77	77	51
90°	0	0	0	0	0	



TEST NUMBER: P309069

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-S-CP125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1236.6	1236.6	1236.6	1236.6	1236.6
2.5°	1228.6	1231.8	1238.2	1239.8	1239.8
5°	1223.7	1226.9	1233.4	1235.0	1236.6
7.5°	1215.7	1217.3	1225.3	1228.6	1230.2
10°	1202.8	1206.0	1214.1	1218.9	1220.5
12.5°	1185.1	1189.9	1199.6	1206.0	1207.6
15°	1164.1	1170.6	1180.2	1189.9	1191.5
17.5°	1141.6	1148.0	1160.9	1172.2	1175.4
20°	1114.2	1122.3	1136.8	1149.7	1154.5
22.5°	1086.9	1093.3	1111.0	1127.1	1131.9
25°	1053.0	1062.7	1085.2	1099.7	1106.2
27.5°	1017.6	1028.9	1051.4	1070.8	1077.2
30°	980.6	991.9	1016.0	1040.2	1048.2
32.5°	941.9	954.8	983.8	1008.0	1016.0
35°	901.7	913.0	943.6	972.5	982.2
37.5°	859.8	869.5	904.9	935.5	945.2
40°	814.7	827.6	864.7	900.1	909.7
42.5°	769.7	784.1	821.2	859.8	869.5
45°	724.6	740.7	779.3	819.6	830.8
47.5°	681.1	694.0	737.5	776.1	792.2
50°	634.4	647.3	689.1	732.6	748.7
52.5°	586.1	603.8	648.9	690.8	710.1
55°	539.4	557.1	603.8	645.7	663.4
57.5°	495.9	510.4	558.7	602.2	619.9
60°	449.2	462.1	513.6	560.3	576.4
62.5°	399.3	418.6	471.8	515.3	534.6
65°	354.2	375.2	431.5	473.4	492.7
67.5°	312.4	331.7	386.4	431.5	452.5
70°	264.1	289.8	346.2	391.3	410.6
72.5°	225.4	248.0	305.9	351.0	371.9
75°	180.3	207.7	265.7	310.8	326.9
77.5°	143.3	170.7	225.4	260.8	268.9
80°	104.7	132.0	183.6	201.3	206.1
82.5°	70.8	96.6	132.0	136.9	138.5
85°	43.5	59.6	77.3	77.3	77.3
87.5°	20.9	24.2	27.4	25.8	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)