

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: P309134

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP250-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: P309134  
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: 22FCZ2-44HE-UNV-L82765-S-CP250-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.250" 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**

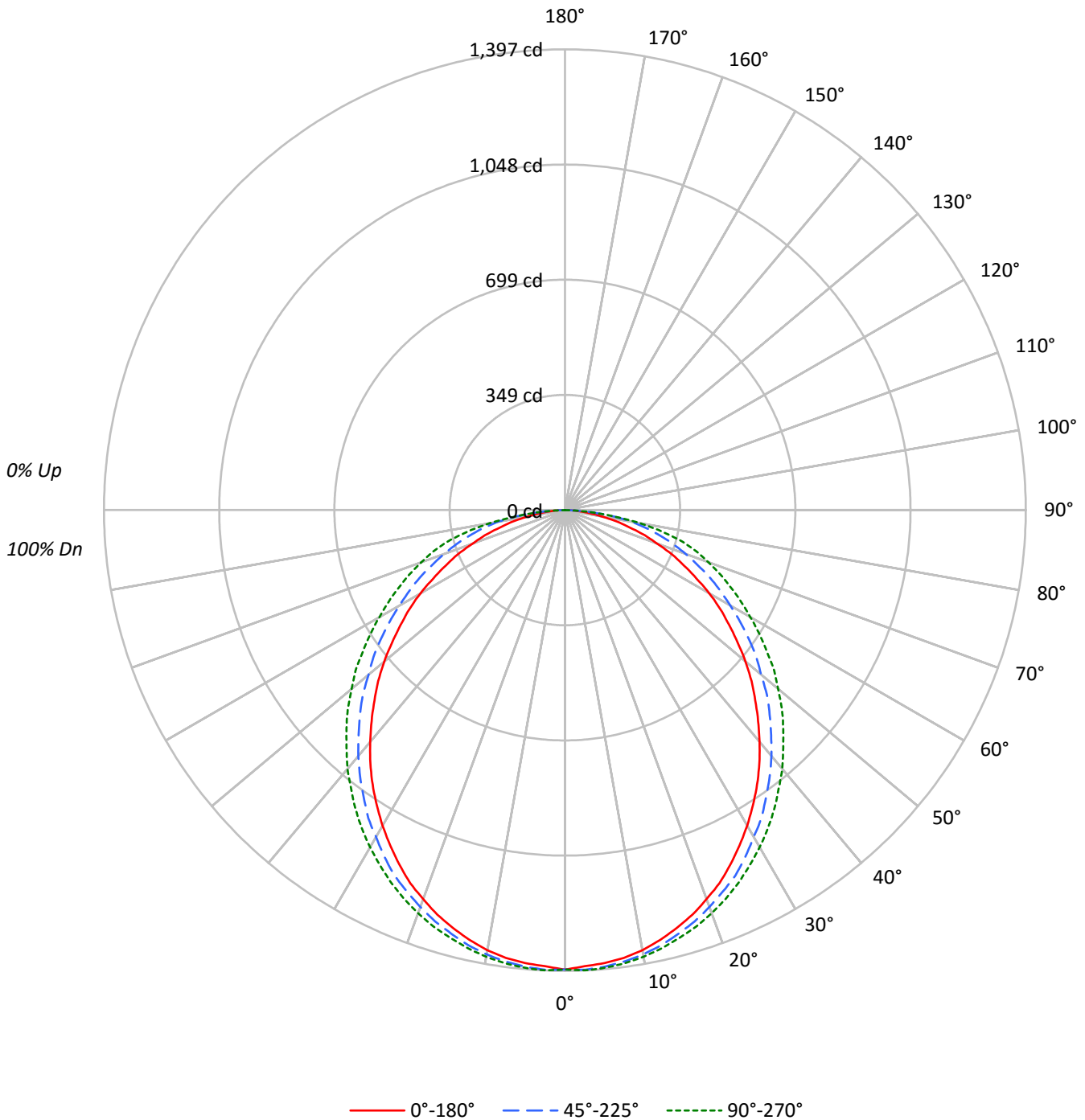
Lumens per Lamp: N/A  
Luminaire Lumens: 3888.0 lumens  
Efficiency: N/A  
Efficacy: 103.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	3749	3749	3749
5°	3724	3754	3763
10°	3703	3738	3757
15°	3654	3704	3740
20°	3595	3668	3725
25°	3523	3630	3700
30°	3433	3557	3669
35°	3337	3492	3635
40°	3224	3422	3600
45°	3107	3341	3562
50°	2992	3250	3531
55°	2851	3192	3506
60°	2724	3115	3495
65°	2541	3096	3535
70°	2341	3068	3640
75°	2113	3112	3829
80°	1827	3205	3598
85°	1513	2689	2689



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.7	3.4
10°-20°	374.9	9.6
20°-30°	561.0	14.4
30°-40°	664.4	17.1
40°-50°	677.1	17.4
50°-60°	606.9	15.6
60°-70°	475.1	12.2
70°-80°	306.4	7.9
80°-90°	90.5	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°	1067.7	27.5
0°-40°	1732.1	44.5
0°-60°	3016.0	77.6
0°-90°	3888.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3888.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1393	1393	1393	1393	1393	
5°	1379	1382	1390	1391	1393	131
15°	1312	1319	1330	1341	1342	370
25°	1186	1197	1223	1239	1246	546
35°	1016	1029	1063	1096	1107	635
45°	816	834	878	923	936	630
55°	608	628	680	727	747	545
65°	399	423	486	533	555	396
75°	203	234	299	350	368	218
85°	49	67	87	87	87	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1393.2	1393.2	1393.2	1393.2	1393.2
2.5°	1384.1	1387.7	1395.0	1396.8	1396.8
5°	1378.7	1382.3	1389.6	1391.4	1393.2
7.5°	1369.6	1371.4	1380.5	1384.1	1385.9
10°	1355.1	1358.7	1367.8	1373.2	1375.1
12.5°	1335.1	1340.6	1351.5	1358.7	1360.5
15°	1311.6	1318.8	1329.7	1340.6	1342.4
17.5°	1286.2	1293.4	1307.9	1320.6	1324.3
20°	1255.3	1264.4	1280.7	1295.2	1300.7
22.5°	1224.5	1231.7	1251.7	1269.8	1275.3
25°	1186.4	1197.3	1222.7	1239.0	1246.3
27.5°	1146.5	1159.2	1184.6	1206.3	1213.6
30°	1104.8	1117.5	1144.7	1171.9	1180.9
32.5°	1061.2	1075.7	1108.4	1135.6	1144.7
35°	1015.9	1028.6	1063.0	1095.7	1106.6
37.5°	968.7	979.6	1019.5	1054.0	1064.8
40°	917.9	932.4	974.1	1014.1	1024.9
42.5°	867.1	883.4	925.2	968.7	979.6
45°	816.3	834.5	878.0	923.4	936.1
47.5°	767.3	781.9	830.8	874.4	892.5
50°	714.7	729.2	776.4	825.4	843.5
52.5°	660.3	680.3	731.1	778.2	800.0
55°	607.7	627.7	680.3	727.4	747.4
57.5°	558.7	575.1	629.5	678.5	698.4
60°	506.1	520.6	578.7	631.3	649.4
62.5°	449.9	471.7	531.5	580.5	602.3
65°	399.1	422.7	486.2	533.3	555.1
67.5°	351.9	373.7	435.4	486.2	509.7
70°	297.5	326.5	390.0	440.8	462.6
72.5°	254.0	279.4	344.7	395.5	419.0
75°	203.2	234.0	299.3	350.1	368.3
77.5°	161.5	192.3	254.0	293.9	302.9
80°	117.9	148.8	206.8	226.8	232.2
82.5°	79.8	108.8	148.8	154.2	156.0
85°	49.0	67.1	87.1	87.1	87.1
87.5°	23.6	27.2	30.8	29.0	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)