

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: P309137

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP250-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: P309137  
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-5500K  
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: 4050.0 lumens  
Efficiency: N/A  
Efficacy: 106.0 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

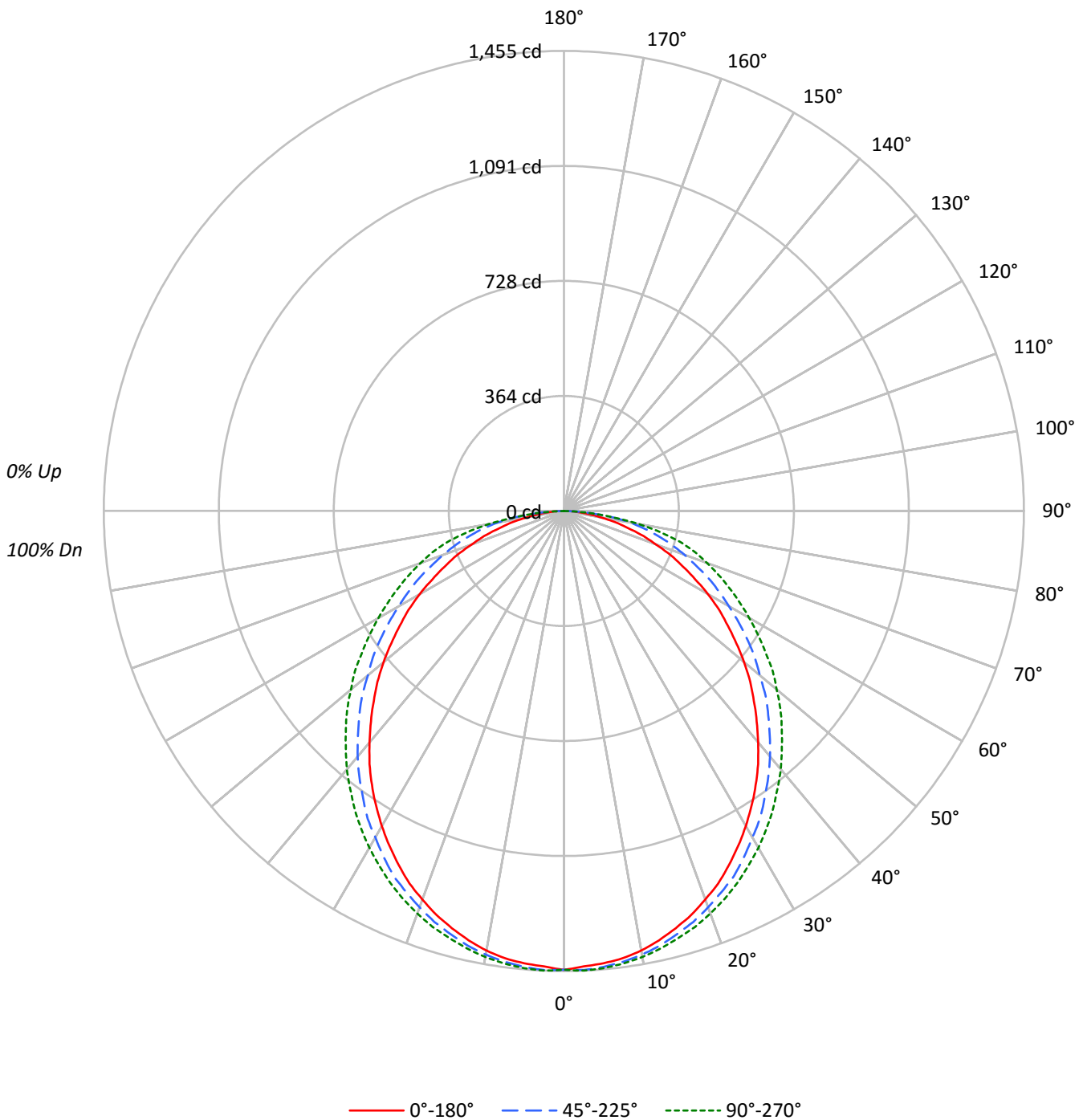
Input Watts (W): 38.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3905	3905	3905
5°	3879	3910	3920
10°	3857	3893	3914
15°	3806	3859	3896
20°	3745	3820	3880
25°	3669	3782	3855
30°	3576	3705	3823
35°	3476	3638	3787
40°	3359	3564	3750
45°	3236	3481	3711
50°	3117	3386	3679
55°	2970	3324	3652
60°	2837	3244	3641
65°	2647	3224	3682
70°	2438	3197	3792
75°	2200	3242	3988
80°	1903	3338	3749
85°	1575	2800	2800



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.2	3.4
10°-20°	390.6	9.6
20°-30°	584.4	14.4
30°-40°	692.1	17.1
40°-50°	705.3	17.4
50°-60°	632.1	15.6
60°-70°	494.9	12.2
70°-80°	319.1	7.9
80°-90°	94.3	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°	1112.2	27.5
0°-40°	1804.2	44.5
0°-60°	3141.7	77.6
0°-90°	4050.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4050.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1451	1451	1451	1451	1451	
5°	1436	1440	1448	1449	1451	136
15°	1366	1374	1385	1396	1398	385
25°	1236	1247	1274	1291	1298	569
35°	1058	1071	1107	1141	1153	661
45°	850	869	915	962	975	657
55°	633	654	709	758	778	568
65°	416	440	506	556	578	413
75°	212	244	312	365	384	227
85°	51	70	91	91	91	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1451.2	1451.2	1451.2	1451.2	1451.2
2.5°	1441.8	1445.6	1453.1	1455.0	1455.0
5°	1436.1	1439.9	1447.5	1449.4	1451.2
7.5°	1426.7	1428.6	1438.0	1441.8	1443.7
10°	1411.6	1415.3	1424.8	1430.5	1432.3
12.5°	1390.8	1396.4	1407.8	1415.3	1417.2
15°	1366.2	1373.8	1385.1	1396.4	1398.3
17.5°	1339.8	1347.3	1362.4	1375.7	1379.4
20°	1307.6	1317.1	1334.1	1349.2	1354.9
22.5°	1275.5	1283.1	1303.8	1322.7	1328.4
25°	1235.8	1247.2	1273.6	1290.6	1298.2
27.5°	1194.3	1207.5	1233.9	1256.6	1264.2
30°	1150.8	1164.0	1192.4	1220.7	1230.2
32.5°	1105.4	1120.6	1154.6	1182.9	1192.4
35°	1058.2	1071.4	1107.3	1141.3	1152.7
37.5°	1009.1	1020.4	1062.0	1097.9	1109.2
40°	956.2	971.3	1014.7	1056.3	1067.6
42.5°	903.2	920.3	963.7	1009.1	1020.4
45°	850.3	869.2	914.6	961.8	975.1
47.5°	799.3	814.4	865.5	910.8	929.7
50°	744.5	759.6	808.8	859.8	878.7
52.5°	687.8	708.6	761.5	810.7	833.3
55°	633.0	653.8	708.6	757.7	778.5
57.5°	582.0	599.0	655.7	706.7	727.5
60°	527.2	542.3	602.8	657.6	676.5
62.5°	468.6	491.3	553.7	604.7	627.4
65°	415.7	440.3	506.4	555.6	578.2
67.5°	366.6	389.3	453.5	506.4	531.0
70°	309.9	340.1	406.3	459.2	481.9
72.5°	264.5	291.0	359.0	411.9	436.5
75°	211.6	243.8	311.8	364.7	383.6
77.5°	168.2	200.3	264.5	306.1	315.6
80°	122.8	155.0	215.4	236.2	241.9
82.5°	83.1	113.4	155.0	160.6	162.5
85°	51.0	69.9	90.7	90.7	90.7
87.5°	24.6	28.3	32.1	30.2	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)