

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: P309135

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP250-W2A-U-4500K**

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: P309135  
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-4500K  
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: 3957.0 lumens  
Efficiency: N/A  
Efficacy: 104.4 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

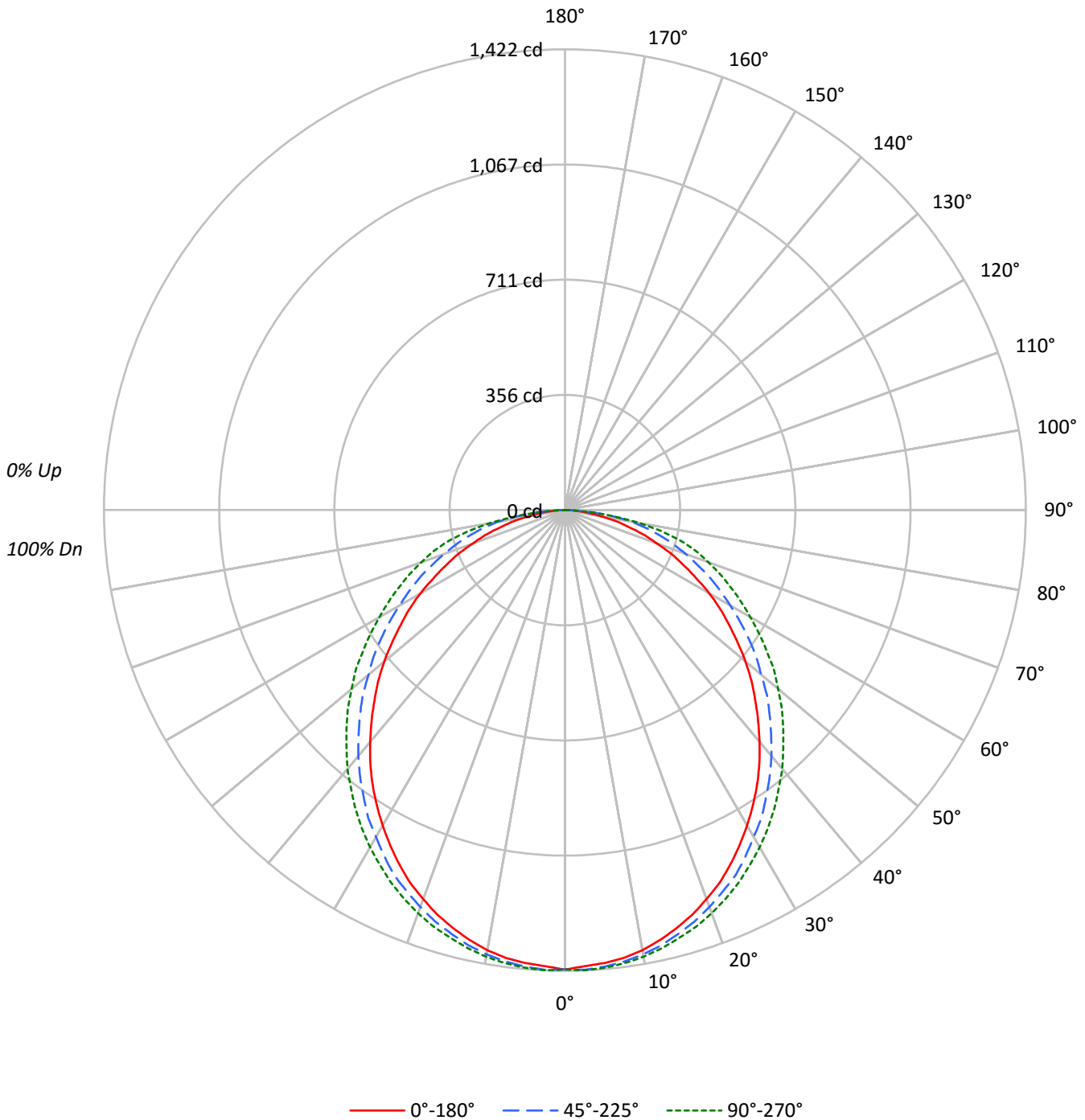
Input Watts (W): 37.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3816	3816	3816
5°	3790	3820	3830
10°	3768	3804	3824
15°	3719	3770	3806
20°	3659	3733	3791
25°	3585	3695	3766
30°	3494	3620	3735
35°	3396	3554	3700
40°	3282	3483	3664
45°	3162	3401	3626
50°	3045	3308	3594
55°	2902	3248	3569
60°	2772	3170	3557
65°	2586	3151	3598
70°	2382	3123	3704
75°	2150	3167	3897
80°	1860	3262	3662
85°	1538	2736	2736



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.1	3.4
10°-20°	381.6	9.6
20°-30°	571.0	14.4
30°-40°	676.2	17.1
40°-50°	689.1	17.4
50°-60°	617.6	15.6
60°-70°	483.5	12.2
70°-80°	311.8	7.9
80°-90°	92.1	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°	1086.7	27.5
0°-40°	1762.8	44.5
0°-60°	3069.5	77.6
0°-90°	3957.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3957.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1418	1418	1418	1418	1418	
5°	1403	1407	1414	1416	1418	133
15°	1335	1342	1353	1364	1366	376
25°	1207	1218	1244	1261	1268	556
35°	1034	1047	1082	1115	1126	646
45°	831	849	894	940	953	642
55°	618	639	692	740	761	555
65°	406	430	495	543	565	403
75°	207	238	305	356	375	222
85°	50	68	89	89	89	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1417.9	1417.9	1417.9	1417.9	1417.9
2.5°	1408.7	1412.4	1419.8	1421.6	1421.6
5°	1403.1	1406.8	1414.2	1416.1	1417.9
7.5°	1393.9	1395.8	1405.0	1408.7	1410.5
10°	1379.1	1382.8	1392.1	1397.6	1399.5
12.5°	1358.8	1364.4	1375.5	1382.8	1384.7
15°	1334.8	1342.2	1353.3	1364.4	1366.2
17.5°	1309.0	1316.4	1331.1	1344.1	1347.8
20°	1277.6	1286.8	1303.4	1318.2	1323.8
22.5°	1246.2	1253.6	1273.9	1292.4	1297.9
25°	1207.4	1218.5	1244.4	1261.0	1268.4
27.5°	1166.8	1179.8	1205.6	1227.8	1235.1
30°	1124.4	1137.3	1165.0	1192.7	1201.9
32.5°	1080.1	1094.8	1128.1	1155.7	1165.0
35°	1033.9	1046.8	1081.9	1115.1	1126.2
37.5°	985.9	997.0	1037.6	1072.7	1083.7
40°	934.2	949.0	991.4	1032.1	1043.1
42.5°	882.5	899.1	941.6	985.9	997.0
45°	830.8	849.3	893.6	939.7	952.7
47.5°	781.0	795.7	845.6	889.9	908.4
50°	727.4	742.2	790.2	840.0	858.5
52.5°	672.0	692.3	744.0	792.0	814.2
55°	618.5	638.8	692.3	740.3	760.7
57.5°	568.6	585.3	640.6	690.5	710.8
60°	515.1	529.9	589.0	642.5	661.0
62.5°	457.9	480.0	540.9	590.8	613.0
65°	406.2	430.2	494.8	542.8	565.0
67.5°	358.2	380.3	443.1	494.8	518.8
70°	302.8	332.3	396.9	448.6	470.8
72.5°	258.5	284.3	350.8	402.5	426.5
75°	206.8	238.2	304.6	356.3	374.8
77.5°	164.3	195.7	258.5	299.1	308.3
80°	120.0	151.4	210.5	230.8	236.3
82.5°	81.2	110.8	151.4	156.9	158.8
85°	49.8	68.3	88.6	88.6	88.6
87.5°	24.0	27.7	31.4	29.5	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)