

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: P309125

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP187-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: P309125  
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-CP187-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.187" 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**

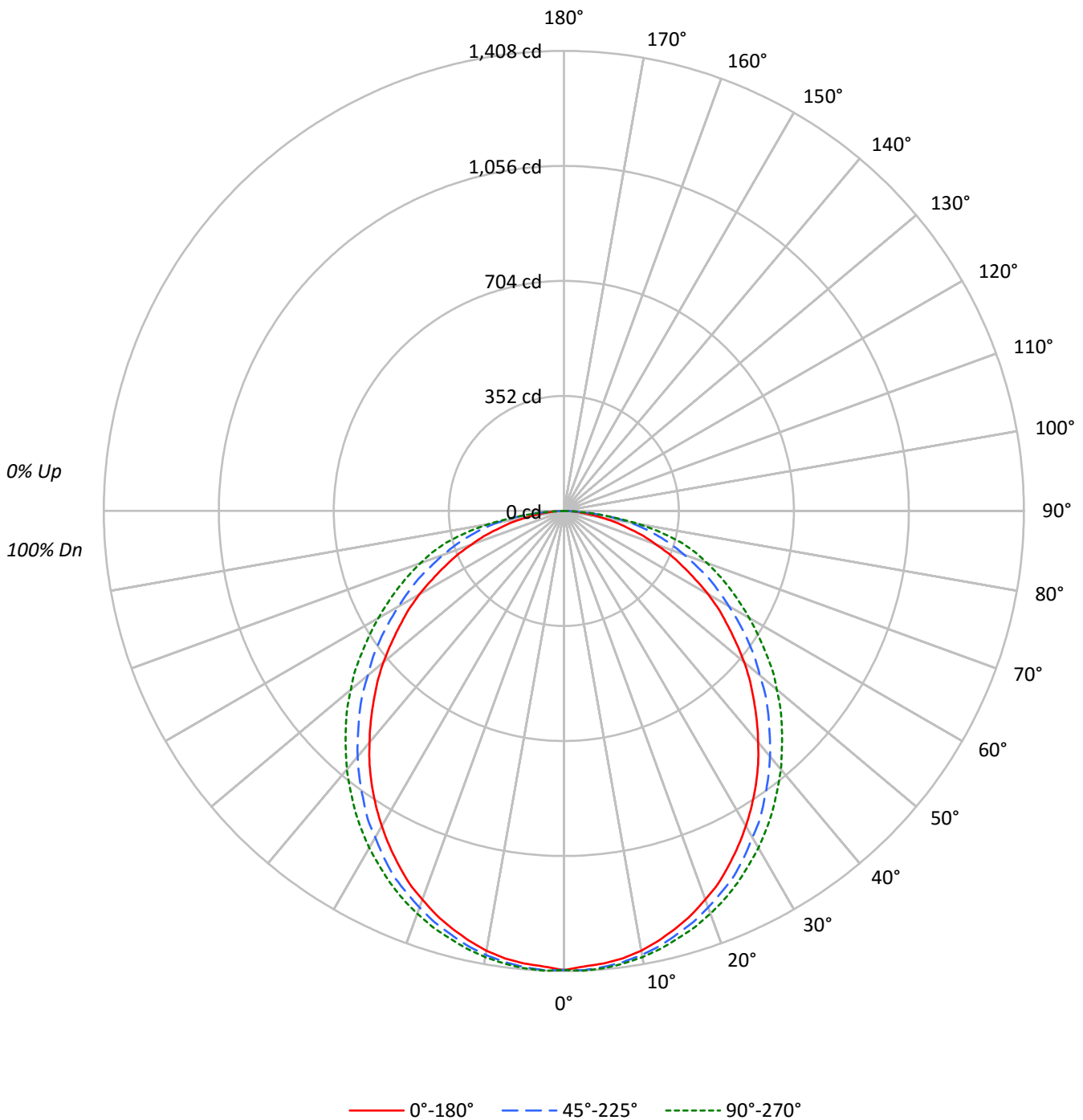
Lumens per Lamp: N/A  
Luminaire Lumens: 3920.0 lumens  
Efficiency: N/A  
Efficacy: 104.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3780	3780	3780
5°	3755	3784	3794
10°	3733	3768	3788
15°	3684	3735	3770
20°	3625	3698	3755
25°	3552	3660	3731
30°	3461	3586	3700
35°	3365	3521	3665
40°	3251	3450	3630
45°	3132	3369	3592
50°	3017	3277	3561
55°	2875	3218	3535
60°	2746	3140	3524
65°	2562	3121	3564
70°	2360	3094	3670
75°	2129	3138	3860
80°	1843	3231	3628
85°	1525	2711	2711



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.8	3.4
10°-20°	378.0	9.6
20°-30°	565.6	14.4
30°-40°	669.8	17.1
40°-50°	682.7	17.4
50°-60°	611.8	15.6
60°-70°	479.0	12.2
70°-80°	308.9	7.9
80°-90°	91.3	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°	1076.5	27.5
0°-40°	1746.3	44.5
0°-60°	3040.8	77.6
0°-90°	3920.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3920.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1405	1405	1405	1405	1405	
5°	1390	1394	1401	1403	1405	132
15°	1322	1330	1341	1352	1353	373
25°	1196	1207	1233	1249	1256	551
35°	1024	1037	1072	1105	1116	640
45°	823	841	885	931	944	636
55°	613	633	686	733	754	549
65°	402	426	490	538	560	400
75°	205	236	302	353	371	220
85°	49	68	88	88	88	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1404.7	1404.7	1404.7	1404.7	1404.7
2.5°	1395.5	1399.2	1406.5	1408.3	1408.3
5°	1390.0	1393.7	1401.0	1402.8	1404.7
7.5°	1380.9	1382.7	1391.9	1395.5	1397.3
10°	1366.2	1369.9	1379.1	1384.5	1386.4
12.5°	1346.1	1351.6	1362.6	1369.9	1371.7
15°	1322.4	1329.7	1340.6	1351.6	1353.4
17.5°	1296.7	1304.1	1318.7	1331.5	1335.2
20°	1265.7	1274.8	1291.3	1305.9	1311.4
22.5°	1234.6	1241.9	1262.0	1280.3	1285.8
25°	1196.2	1207.1	1232.7	1249.2	1256.5
27.5°	1155.9	1168.7	1194.3	1216.3	1223.6
30°	1113.9	1126.7	1154.1	1181.5	1190.7
32.5°	1070.0	1084.6	1117.5	1144.9	1154.1
35°	1024.2	1037.0	1071.8	1104.7	1115.7
37.5°	976.7	987.7	1027.9	1062.6	1073.6
40°	925.5	940.1	982.2	1022.4	1033.4
42.5°	874.3	890.7	932.8	976.7	987.7
45°	823.0	841.3	885.2	931.0	943.8
47.5°	773.7	788.3	837.7	881.6	899.9
50°	720.6	735.3	782.8	832.2	850.5
52.5°	665.7	685.9	737.1	784.6	806.6
55°	612.7	632.8	685.9	733.4	753.5
57.5°	563.3	579.8	634.7	684.0	704.2
60°	510.3	524.9	583.4	636.5	654.8
62.5°	453.6	475.5	535.9	585.3	607.2
65°	402.4	426.2	490.2	537.7	559.7
67.5°	354.8	376.8	439.0	490.2	513.9
70°	300.0	329.2	393.2	444.4	466.4
72.5°	256.1	281.7	347.5	398.7	422.5
75°	204.8	235.9	301.8	353.0	371.3
77.5°	162.8	193.9	256.1	296.3	305.4
80°	118.9	150.0	208.5	228.6	234.1
82.5°	80.5	109.7	150.0	155.5	157.3
85°	49.4	67.7	87.8	87.8	87.8
87.5°	23.8	27.4	31.1	29.3	29.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)