

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: P309129

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP187-W2A-U-5700K**

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: P309129  
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-5700K  
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**

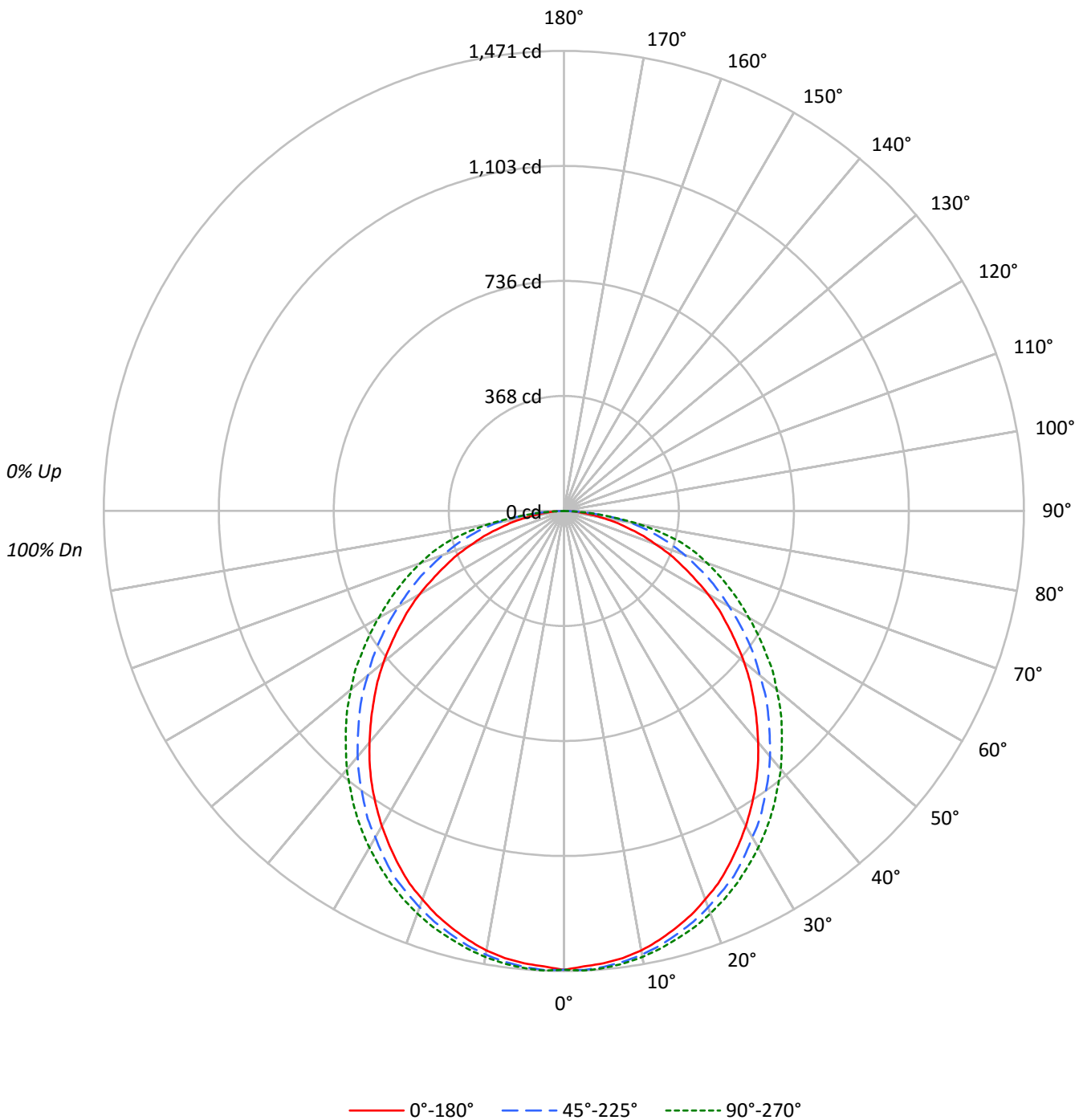
Lumens per Lamp: N/A  
Luminaire Lumens: 4094.0 lumens  
Efficiency: N/A  
Efficacy: 107.2 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3948	3948	3948
5°	3921	3952	3963
10°	3899	3936	3956
15°	3848	3901	3938
20°	3785	3862	3922
25°	3709	3823	3896
30°	3615	3745	3864
35°	3514	3677	3828
40°	3395	3603	3791
45°	3271	3518	3751
50°	3151	3423	3718
55°	3002	3361	3692
60°	2868	3279	3680
65°	2676	3259	3722
70°	2465	3231	3832
75°	2224	3277	4032
80°	1925	3375	3789
85°	1593	2831	2831



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.7	3.4
10°-20°	394.8	9.6
20°-30°	590.7	14.4
30°-40°	699.6	17.1
40°-50°	713.0	17.4
50°-60°	639.0	15.6
60°-70°	500.3	12.2
70°-80°	322.6	7.9
80°-90°	95.3	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°	1124.3	27.5
0°-40°	1823.8	44.5
0°-60°	3175.8	77.6
0°-90°	4094.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4094.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1467	1467	1467	1467	1467	
5°	1452	1456	1463	1465	1467	138
15°	1381	1389	1400	1412	1414	389
25°	1249	1261	1288	1305	1312	575
35°	1070	1083	1119	1154	1165	669
45°	860	879	924	972	986	664
55°	640	661	716	766	787	574
65°	420	445	512	562	584	417
75°	214	246	315	369	388	229
85°	52	71	92	92	92	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1467.0	1467.0	1467.0	1467.0	1467.0
2.5°	1457.5	1461.3	1468.9	1470.8	1470.8
5°	1451.7	1455.5	1463.2	1465.1	1467.0
7.5°	1442.2	1444.1	1453.6	1457.5	1459.4
10°	1426.9	1430.7	1440.3	1446.0	1447.9
12.5°	1405.9	1411.6	1423.1	1430.7	1432.6
15°	1381.1	1388.7	1400.2	1411.6	1413.5
17.5°	1354.3	1361.9	1377.2	1390.6	1394.4
20°	1321.8	1331.4	1348.6	1363.9	1369.6
22.5°	1289.4	1297.0	1318.0	1337.1	1342.8
25°	1249.2	1260.7	1287.5	1304.6	1312.3
27.5°	1207.2	1220.6	1247.3	1270.3	1277.9
30°	1163.3	1176.7	1205.3	1234.0	1243.5
32.5°	1117.4	1132.7	1167.1	1195.8	1205.3
35°	1069.7	1083.1	1119.4	1153.7	1165.2
37.5°	1020.0	1031.5	1073.5	1109.8	1121.3
40°	966.5	981.8	1025.8	1067.8	1079.2
42.5°	913.1	930.3	974.2	1020.0	1031.5
45°	859.6	878.7	924.5	972.3	985.6
47.5°	808.0	823.3	874.9	920.7	939.8
50°	752.6	767.9	817.6	869.1	888.2
52.5°	695.3	716.3	769.8	819.5	842.4
55°	639.9	660.9	716.3	766.0	787.0
57.5°	588.3	605.5	662.8	714.4	735.4
60°	532.9	548.2	609.3	664.7	683.8
62.5°	473.7	496.6	559.7	611.3	634.2
65°	420.2	445.1	511.9	561.6	584.5
67.5°	370.6	393.5	458.4	511.9	536.8
70°	313.3	343.8	410.7	464.2	487.1
72.5°	267.4	294.2	362.9	416.4	441.2
75°	213.9	246.4	315.2	368.7	387.8
77.5°	170.0	202.5	267.4	309.4	319.0
80°	124.2	156.6	217.8	238.8	244.5
82.5°	84.0	114.6	156.6	162.4	164.3
85°	51.6	70.7	91.7	91.7	91.7
87.5°	24.8	28.7	32.5	30.6	30.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)