

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: P309127

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP187-W2A-U-5000K**

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: P309127  
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-5000K  
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**

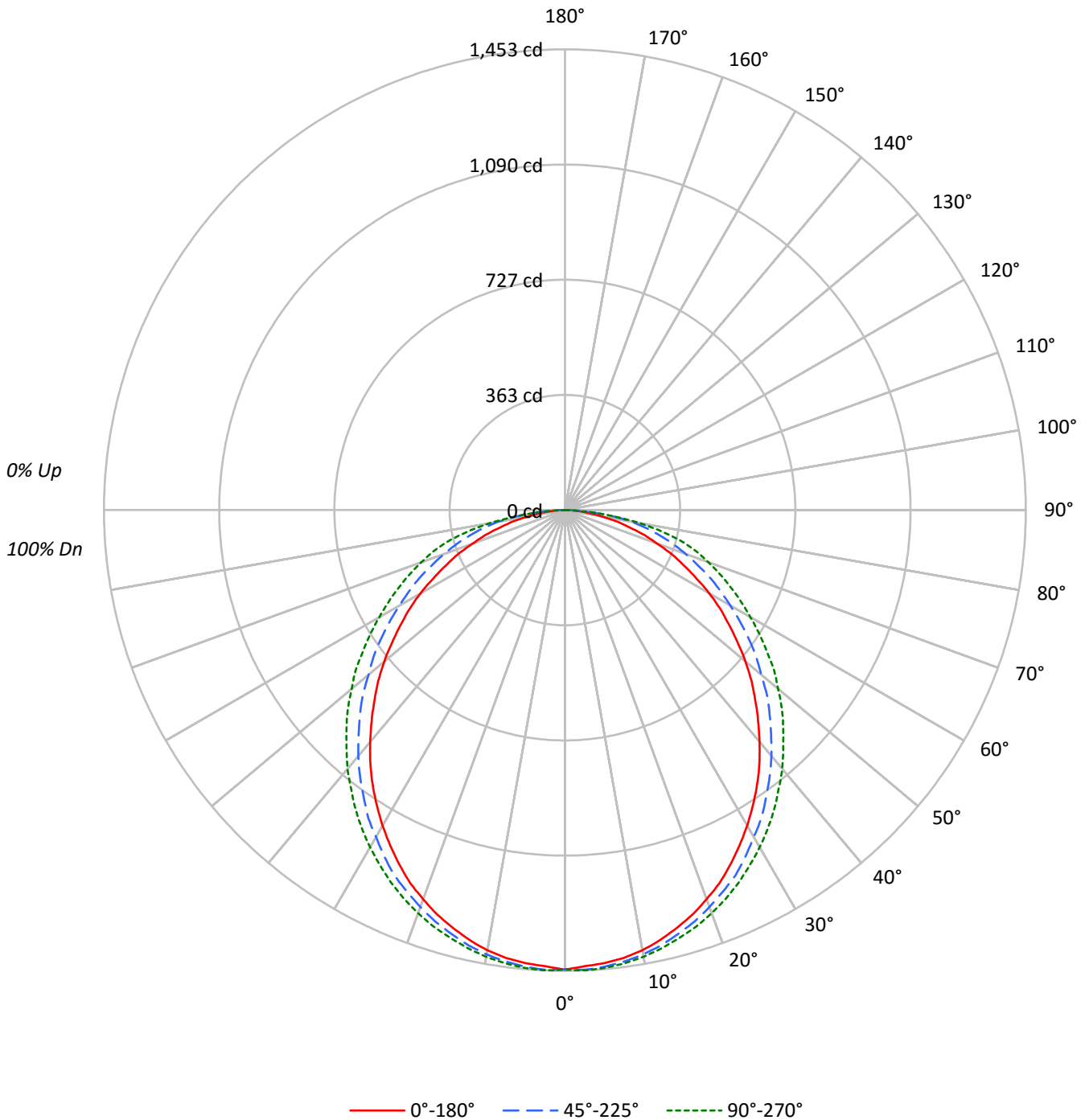
Lumens per Lamp: N/A  
Luminaire Lumens: 4044.0 lumens  
Efficiency: N/A  
Efficacy: 106.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3899	3899	3899
5°	3874	3904	3914
10°	3851	3888	3908
15°	3801	3853	3890
20°	3739	3815	3874
25°	3664	3776	3849
30°	3571	3700	3817
35°	3471	3632	3781
40°	3354	3559	3745
45°	3231	3475	3705
50°	3112	3381	3673
55°	2966	3320	3647
60°	2833	3239	3636
65°	2643	3220	3677
70°	2434	3192	3785
75°	2197	3237	3982
80°	1900	3333	3742
85°	1572	2797	2797



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.0	3.4
10°-20°	390.0	9.6
20°-30°	583.5	14.4
30°-40°	691.0	17.1
40°-50°	704.2	17.4
50°-60°	631.2	15.6
60°-70°	494.2	12.2
70°-80°	318.7	7.9
80°-90°	94.1	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°	1110.5	27.5
0°-40°	1801.6	44.5
0°-60°	3137.0	77.6
0°-90°	4044.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4044.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1449	1449	1449	1449	1449	
5°	1434	1438	1445	1447	1449	136
15°	1364	1372	1383	1394	1396	385
25°	1234	1245	1272	1289	1296	568
35°	1057	1070	1106	1140	1151	660
45°	849	868	913	960	974	656
55°	632	653	708	757	777	567
65°	415	440	506	555	577	412
75°	211	243	311	364	383	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°	1449.1	1449.1	1449.1	1449.1	1449.1
2.5°	1439.7	1443.4	1451.0	1452.9	1452.9
5°	1434.0	1437.8	1445.3	1447.2	1449.1
7.5°	1424.6	1426.4	1435.9	1439.7	1441.5
10°	1409.5	1413.2	1422.7	1428.3	1430.2
12.5°	1388.7	1394.4	1405.7	1413.2	1415.1
15°	1364.2	1371.7	1383.1	1394.4	1396.3
17.5°	1337.8	1345.3	1360.4	1373.6	1377.4
20°	1305.7	1315.1	1332.1	1347.2	1352.9
22.5°	1273.6	1281.2	1301.9	1320.8	1326.4
25°	1234.0	1245.3	1271.7	1288.7	1296.3
27.5°	1192.5	1205.7	1232.1	1254.7	1262.3
30°	1149.1	1162.3	1190.6	1218.9	1228.3
32.5°	1103.8	1118.9	1152.9	1181.2	1190.6
35°	1056.6	1069.8	1105.7	1139.6	1151.0
37.5°	1007.6	1018.9	1060.4	1096.3	1107.6
40°	954.7	969.8	1013.2	1054.7	1066.1
42.5°	901.9	918.9	962.3	1007.6	1018.9
45°	849.1	867.9	913.2	960.4	973.6
47.5°	798.1	813.2	864.2	909.5	928.3
50°	743.4	758.5	807.6	858.5	877.4
52.5°	686.8	707.6	760.4	809.5	832.1
55°	632.1	652.8	707.6	756.6	777.4
57.5°	581.1	598.1	654.7	705.7	726.4
60°	526.4	541.5	601.9	656.6	675.5
62.5°	467.9	490.6	552.8	603.8	626.4
65°	415.1	439.6	505.7	554.7	577.4
67.5°	366.0	388.7	452.8	505.7	530.2
70°	309.4	339.6	405.7	458.5	481.1
72.5°	264.2	290.6	358.5	411.3	435.9
75°	211.3	243.4	311.3	364.2	383.0
77.5°	167.9	200.0	264.2	305.7	315.1
80°	122.6	154.7	215.1	235.9	241.5
82.5°	83.0	113.2	154.7	160.4	162.3
85°	50.9	69.8	90.6	90.6	90.6
87.5°	24.5	28.3	32.1	30.2	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)