

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: P309126

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP187-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: P309126  
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-4500K  
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**

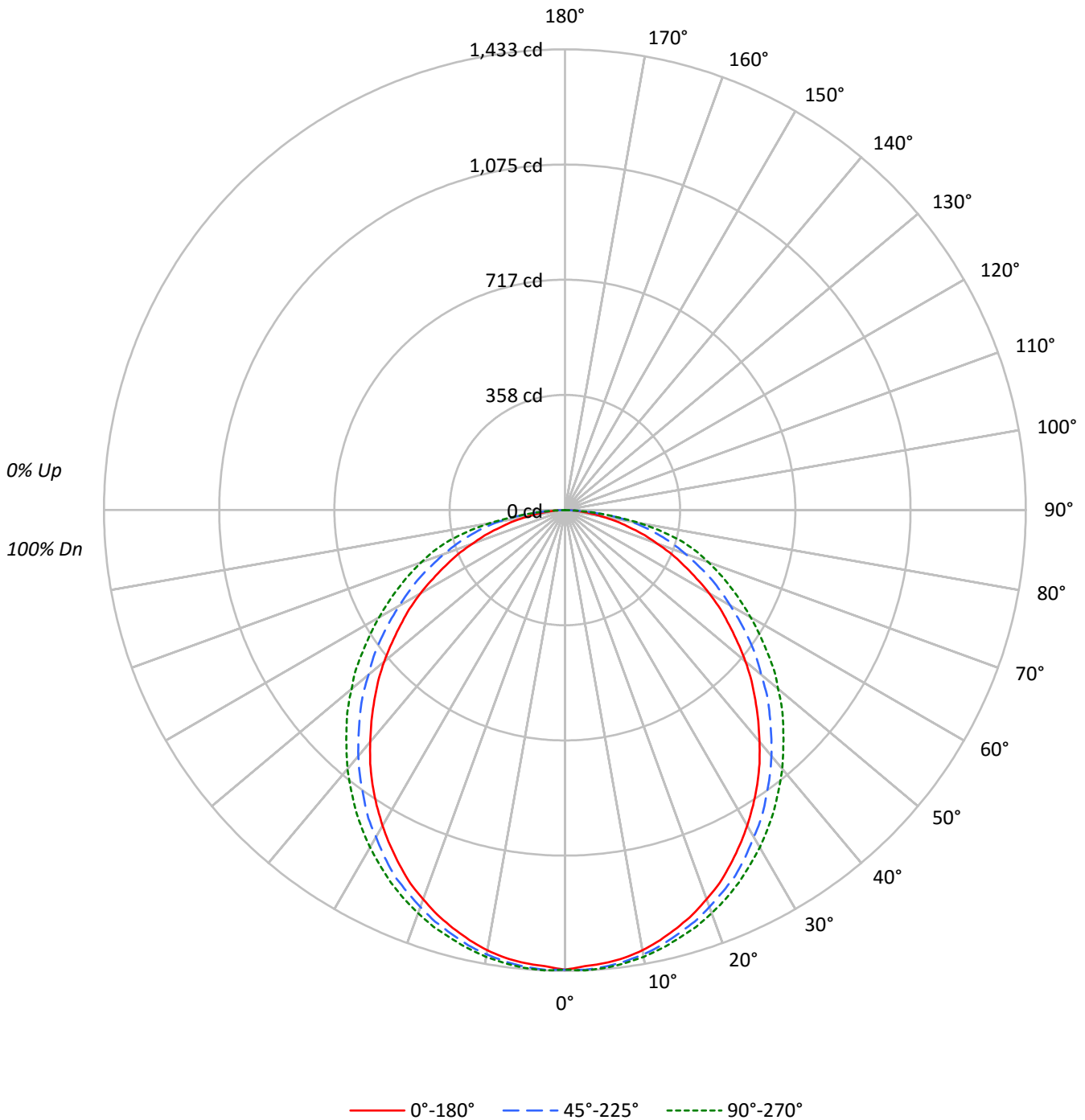
Lumens per Lamp: N/A  
Luminaire Lumens: 3989.0 lumens  
Efficiency: N/A  
Efficacy: 105.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P309126

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-S-CP187-W2A-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P309126

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-S-CP187-W2A-U-4500K

**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°	3846	3846	3846
5°	3821	3851	3861
10°	3799	3835	3855
15°	3749	3801	3837
20°	3688	3763	3822
25°	3614	3725	3796
30°	3522	3649	3765
35°	3424	3583	3730
40°	3308	3511	3694
45°	3187	3428	3655
50°	3070	3335	3623
55°	2925	3274	3598
60°	2795	3195	3586
65°	2607	3176	3626
70°	2401	3149	3734
75°	2168	3193	3928
80°	1875	3288	3691
85°	1553	2757	2757



TEST NUMBER: P309126

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-S-CP187-W2A-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.2	3.4
10°-20°	384.7	9.6
20°-30°	575.6	14.4
30°-40°	681.6	17.1
40°-50°	694.7	17.4
50°-60°	622.6	15.6
60°-70°	487.5	12.2
70°-80°	314.3	7.9
80°-90°	92.9	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°	1095.4	27.5
0°-40°	1777.1	44.5
0°-60°	3094.4	77.6
0°-90°	3989.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3989.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1429	1429	1429	1429	1429	
5°	1414	1418	1426	1428	1429	134
15°	1346	1353	1364	1375	1377	379
25°	1217	1228	1254	1271	1279	560
35°	1042	1055	1091	1124	1135	651
45°	838	856	901	947	960	647
55°	624	644	698	746	767	559
65°	410	434	499	547	570	407
75°	208	240	307	359	378	224
85°	50	69	89	89	89	59
90°	0	0	0	0	0	



TEST NUMBER: P309126

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-S-CP187-W2A-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1429.4	1429.4	1429.4	1429.4	1429.4
2.5°	1420.1	1423.8	1431.2	1433.1	1433.1
5°	1414.5	1418.2	1425.7	1427.5	1429.4
7.5°	1405.2	1407.0	1416.4	1420.1	1421.9
10°	1390.3	1394.0	1403.3	1408.9	1410.8
12.5°	1369.8	1375.4	1386.6	1394.0	1395.9
15°	1345.6	1353.1	1364.2	1375.4	1377.3
17.5°	1319.6	1327.0	1341.9	1354.9	1358.7
20°	1287.9	1297.2	1314.0	1328.9	1334.5
22.5°	1256.3	1263.7	1284.2	1302.8	1308.4
25°	1217.2	1228.4	1254.4	1271.2	1278.6
27.5°	1176.3	1189.3	1215.3	1237.7	1245.1
30°	1133.5	1146.5	1174.4	1202.3	1211.6
32.5°	1088.8	1103.7	1137.2	1165.1	1174.4
35°	1042.3	1055.3	1090.6	1124.2	1135.3
37.5°	993.9	1005.0	1046.0	1081.3	1092.5
40°	941.8	956.6	999.5	1040.4	1051.6
42.5°	889.6	906.4	949.2	993.9	1005.0
45°	837.5	856.1	900.8	947.3	960.4
47.5°	787.3	802.2	852.4	897.1	915.7
50°	733.3	748.2	796.6	846.8	865.4
52.5°	677.5	697.9	750.1	798.4	820.8
55°	623.5	644.0	697.9	746.3	766.8
57.5°	573.2	590.0	645.8	696.1	716.6
60°	519.3	534.2	593.7	647.7	666.3
62.5°	461.6	483.9	545.3	595.6	617.9
65°	409.5	433.7	498.8	547.2	569.5
67.5°	361.1	383.4	446.7	498.8	523.0
70°	305.2	335.0	400.2	452.3	474.6
72.5°	260.6	286.6	353.6	405.7	429.9
75°	208.5	240.1	307.1	359.2	377.8
77.5°	165.6	197.3	260.6	301.5	310.8
80°	121.0	152.6	212.2	232.6	238.2
82.5°	81.9	111.7	152.6	158.2	160.1
85°	50.3	68.9	89.3	89.3	89.3
87.5°	24.2	27.9	31.6	29.8	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)