

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: P309130

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP187-W2A-U-6500K**

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: P309130  
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-6500K  
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**

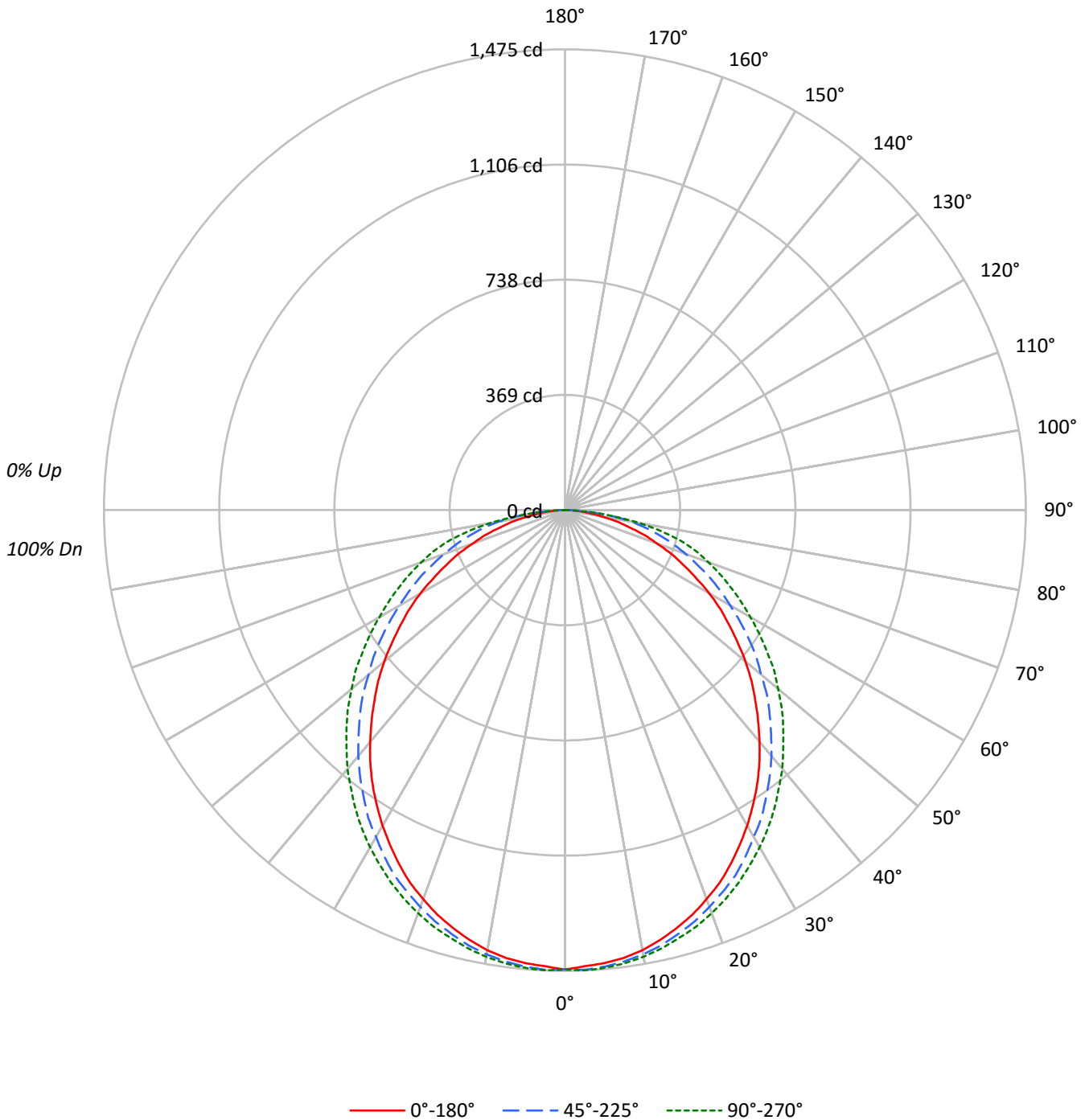
Lumens per Lamp: N/A  
Luminaire Lumens: 4105.0 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3958	3958	3958
5°	3932	3963	3973
10°	3909	3946	3967
15°	3858	3911	3948
20°	3796	3872	3933
25°	3719	3833	3907
30°	3624	3755	3874
35°	3524	3687	3838
40°	3404	3613	3801
45°	3280	3528	3761
50°	3159	3432	3728
55°	3010	3369	3702
60°	2876	3288	3690
65°	2683	3268	3732
70°	2471	3240	3843
75°	2230	3285	4042
80°	1929	3383	3800
85°	1596	2837	2837



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.1	3.4
10°-20°	395.9	9.6
20°-30°	592.3	14.4
30°-40°	701.5	17.1
40°-50°	714.9	17.4
50°-60°	640.7	15.6
60°-70°	501.6	12.2
70°-80°	323.5	7.9
80°-90°	95.6	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°	1127.3	27.5
0°-40°	1828.8	44.5
0°-60°	3184.3	77.6
0°-90°	4105.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4105.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1471	1471	1471	1471	1471	
5°	1456	1460	1467	1469	1471	138
15°	1385	1392	1404	1415	1417	390
25°	1253	1264	1291	1308	1316	577
35°	1073	1086	1122	1157	1168	670
45°	862	881	927	975	988	666
55°	642	663	718	768	789	575
65°	421	446	513	563	586	419
75°	214	247	316	370	389	230
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°	1470.9	1470.9	1470.9	1470.9	1470.9
2.5°	1461.4	1465.2	1472.9	1474.8	1474.8
5°	1455.6	1459.5	1467.1	1469.0	1470.9
7.5°	1446.1	1448.0	1457.5	1461.4	1463.3
10°	1430.7	1434.6	1444.1	1449.9	1451.8
12.5°	1409.7	1415.4	1426.9	1434.6	1436.5
15°	1384.8	1392.4	1403.9	1415.4	1417.3
17.5°	1357.9	1365.6	1380.9	1394.3	1398.2
20°	1325.4	1335.0	1352.2	1367.5	1373.3
22.5°	1292.8	1300.5	1321.6	1340.7	1346.5
25°	1252.6	1264.1	1290.9	1308.1	1315.8
27.5°	1210.5	1223.9	1250.7	1273.7	1281.3
30°	1166.4	1179.8	1208.6	1237.3	1246.9
32.5°	1120.4	1135.8	1170.2	1199.0	1208.6
35°	1072.6	1086.0	1122.4	1156.8	1168.3
37.5°	1022.8	1034.3	1076.4	1112.8	1124.3
40°	969.1	984.5	1028.5	1070.7	1082.1
42.5°	915.5	932.8	976.8	1022.8	1034.3
45°	861.9	881.0	927.0	974.9	988.3
47.5°	810.2	825.5	877.2	923.2	942.3
50°	754.6	770.0	819.7	871.5	890.6
52.5°	697.2	718.2	771.9	821.7	844.6
55°	641.6	662.7	718.2	768.0	789.1
57.5°	589.9	607.1	664.6	716.3	737.4
60°	534.4	549.7	611.0	666.5	685.7
62.5°	475.0	498.0	561.2	612.9	635.9
65°	421.4	446.3	513.3	563.1	586.1
67.5°	371.6	394.6	459.7	513.3	538.2
70°	314.1	344.8	411.8	465.4	488.4
72.5°	268.1	295.0	363.9	417.5	442.4
75°	214.5	247.1	316.0	369.7	388.8
77.5°	170.5	203.0	268.1	310.3	319.9
80°	124.5	157.1	218.3	239.4	245.2
82.5°	84.3	114.9	157.1	162.8	164.7
85°	51.7	70.9	91.9	91.9	91.9
87.5°	24.9	28.7	32.6	30.6	30.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)