

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: P308857

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-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: P308857
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
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-CP187-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 3834.0 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

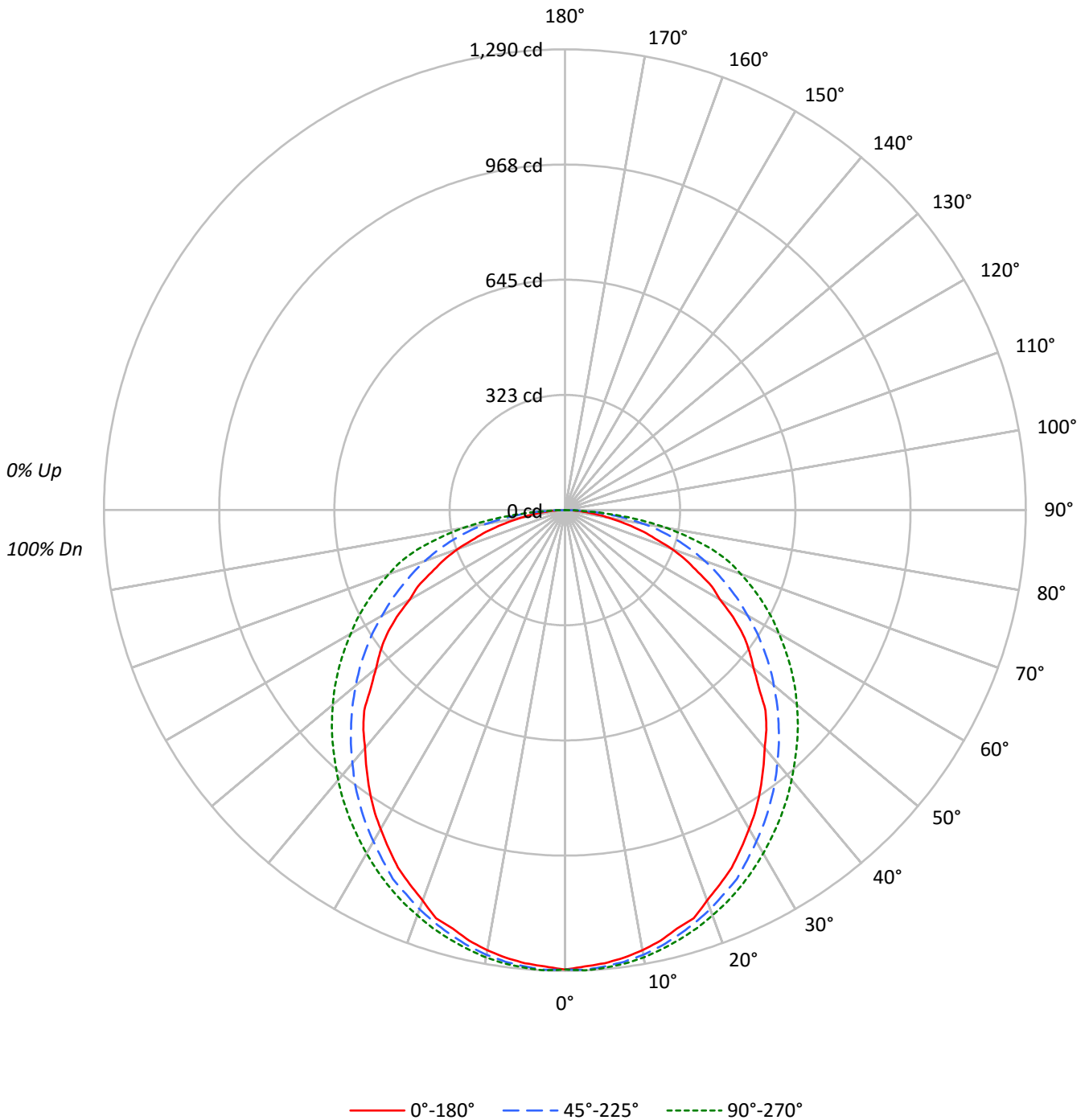
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3461	3461	3461
5°	3440	3465	3475
10°	3420	3455	3475
15°	3379	3430	3466
20°	3332	3405	3458
25°	3280	3383	3454
30°	3205	3330	3450
35°	3135	3291	3454
40°	3055	3249	3468
45°	3024	3219	3499
50°	2889	3196	3549
55°	2858	3186	3624
60°	2696	3180	3723
65°	2617	3202	3891
70°	2512	3277	4129
75°	2289	3377	4446
80°	1962	3498	4493
85°	1587	3344	3853



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.7	3.2
10°-20°	347.2	9.1
20°-30°	522.6	13.6
30°-40°	627.2	16.4
40°-50°	655.6	17.1
50°-60°	610.9	15.9
60°-70°	501.1	13.1
70°-80°	337.6	8.8
80°-90°	110.0	2.9
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°	991.6	25.9
0°-40°	1618.8	42.2
0°-60°	2885.3	75.3
0°-90°	3834.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3834.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1286	1286	1286	1286	1286	
5°	1274	1277	1283	1284	1286	121
15°	1213	1220	1231	1242	1244	343
25°	1105	1112	1140	1156	1163	508
35°	954	967	1002	1037	1052	597
45°	795	800	846	897	919	607
55°	609	620	679	743	772	540
65°	411	429	503	576	611	409
75°	220	244	325	398	428	231
85°	51	73	108	127	125	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1286.3	1286.3	1286.3	1286.3	1286.3
2.5°	1279.0	1282.7	1288.2	1290.0	1290.0
5°	1273.5	1277.2	1282.7	1284.5	1286.3
7.5°	1264.3	1268.0	1275.3	1279.0	1280.8
10°	1251.5	1255.1	1264.3	1269.8	1271.7
12.5°	1235.0	1238.6	1249.6	1257.0	1258.8
15°	1212.9	1220.3	1231.3	1242.3	1244.1
17.5°	1198.3	1196.4	1211.1	1223.9	1227.6
20°	1163.4	1172.6	1189.1	1203.8	1207.4
22.5°	1134.0	1141.4	1163.4	1179.9	1187.2
25°	1104.7	1112.0	1139.5	1156.1	1163.4
27.5°	1068.0	1079.0	1104.7	1128.5	1137.7
30°	1031.3	1042.3	1071.6	1099.2	1110.2
32.5°	994.6	1007.4	1038.6	1068.0	1080.8
35°	954.2	967.0	1001.9	1036.8	1051.5
37.5°	912.0	928.5	965.2	1003.7	1020.3
40°	869.8	886.3	924.8	968.9	987.2
42.5°	834.9	842.3	886.3	934.0	952.4
45°	794.6	800.1	845.9	897.3	919.3
47.5°	735.8	756.0	805.6	862.5	884.5
50°	690.0	712.0	763.4	823.9	847.8
52.5°	651.4	666.1	723.0	783.5	811.1
55°	609.2	620.2	679.0	743.2	772.5
57.5°	557.8	578.0	636.7	702.8	732.2
60°	501.0	526.6	590.9	662.4	691.8
62.5°	464.3	478.9	548.7	620.2	653.3
65°	411.0	429.4	502.8	576.2	611.1
67.5°	367.0	385.4	460.6	534.0	568.9
70°	319.3	337.6	416.5	489.9	524.8
72.5°	264.2	289.9	372.5	445.9	482.6
75°	220.2	244.1	324.8	398.2	427.6
77.5°	170.7	201.9	277.1	337.6	359.7
80°	126.6	157.8	225.7	269.7	289.9
82.5°	86.2	117.4	168.8	201.9	212.9
85°	51.4	73.4	108.3	126.6	124.8
87.5°	23.9	31.2	44.0	44.0	42.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)