

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: P308859

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-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: P308859
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-5700K
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: 3882.0 lumens
Efficiency: N/A
Efficacy: 101.6 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

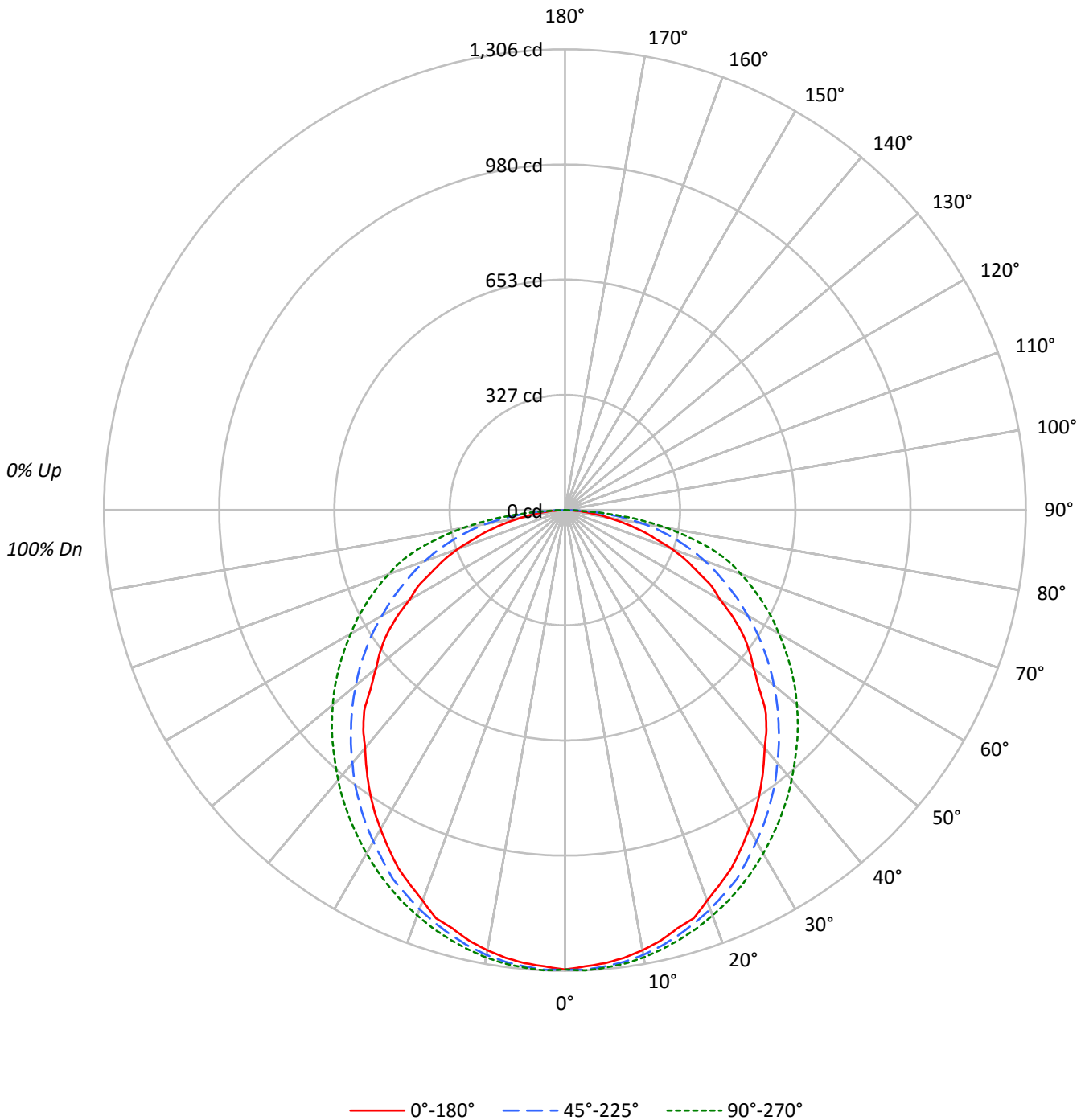
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3505	3505	3505
5°	3483	3508	3518
10°	3462	3498	3518
15°	3421	3473	3509
20°	3373	3448	3501
25°	3321	3426	3498
30°	3245	3372	3493
35°	3174	3333	3497
40°	3094	3289	3511
45°	3062	3260	3542
50°	2925	3236	3594
55°	2894	3225	3670
60°	2730	3220	3770
65°	2650	3242	3940
70°	2544	3319	4181
75°	2319	3420	4501
80°	1987	3541	4550
85°	1606	3384	3900



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.2	3.2
10°-20°	351.6	9.1
20°-30°	529.1	13.6
30°-40°	635.1	16.4
40°-50°	663.8	17.1
50°-60°	618.6	15.9
60°-70°	507.4	13.1
70°-80°	341.9	8.8
80°-90°	111.3	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°	1004.0	25.9
0°-40°	1639.0	42.2
0°-60°	2921.4	75.3
0°-90°	3882.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3882.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1302	1302	1302	1302	1302	
5°	1289	1293	1299	1301	1302	122
15°	1228	1236	1247	1258	1260	347
25°	1118	1126	1154	1170	1178	514
35°	966	979	1014	1050	1065	604
45°	804	810	856	909	931	615
55°	617	628	688	752	782	547
65°	416	435	509	583	619	414
75°	223	247	329	403	433	234
85°	52	74	110	128	126	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1302.4	1302.4	1302.4	1302.4	1302.4
2.5°	1295.0	1298.7	1304.3	1306.2	1306.2
5°	1289.4	1293.2	1298.7	1300.6	1302.4
7.5°	1280.1	1283.9	1291.3	1295.0	1296.9
10°	1267.1	1270.9	1280.1	1285.7	1287.6
12.5°	1250.4	1254.1	1265.3	1272.7	1274.6
15°	1228.1	1235.6	1246.7	1257.9	1259.7
17.5°	1213.3	1211.4	1226.3	1239.3	1243.0
20°	1178.0	1187.2	1204.0	1218.8	1222.6
22.5°	1148.2	1155.7	1178.0	1194.7	1202.1
25°	1118.5	1125.9	1153.8	1170.5	1178.0
27.5°	1081.3	1092.5	1118.5	1142.7	1151.9
30°	1044.2	1055.3	1085.1	1112.9	1124.1
32.5°	1007.0	1020.0	1051.6	1081.3	1094.4
35°	966.1	979.2	1014.5	1049.8	1064.6
37.5°	923.4	940.1	977.3	1016.3	1033.0
40°	880.7	897.4	936.4	981.0	999.6
42.5°	845.4	852.8	897.4	945.7	964.3
45°	804.5	810.1	856.5	908.6	930.8
47.5°	745.0	765.5	815.7	873.3	895.5
50°	698.6	720.9	772.9	834.2	858.4
52.5°	659.6	674.4	732.0	793.4	821.2
55°	616.8	628.0	687.5	752.5	782.2
57.5°	564.8	585.3	644.7	711.6	741.3
60°	507.2	533.2	598.3	670.7	700.5
62.5°	470.1	484.9	555.5	628.0	661.4
65°	416.2	434.8	509.1	583.4	618.7
67.5°	371.6	390.2	466.4	540.7	576.0
70°	323.3	341.9	421.8	496.1	531.4
72.5°	267.5	293.6	377.2	451.5	488.6
75°	223.0	247.1	328.9	403.2	432.9
77.5°	172.8	204.4	280.6	341.9	364.2
80°	128.2	159.8	228.5	273.1	293.6
82.5°	87.3	118.9	170.9	204.4	215.5
85°	52.0	74.3	109.6	128.2	126.3
87.5°	24.2	31.6	44.6	44.6	42.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)