

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: P312865

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-CA08-W2A-U-3000K**

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: P312865
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-L83050-CA08-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC 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

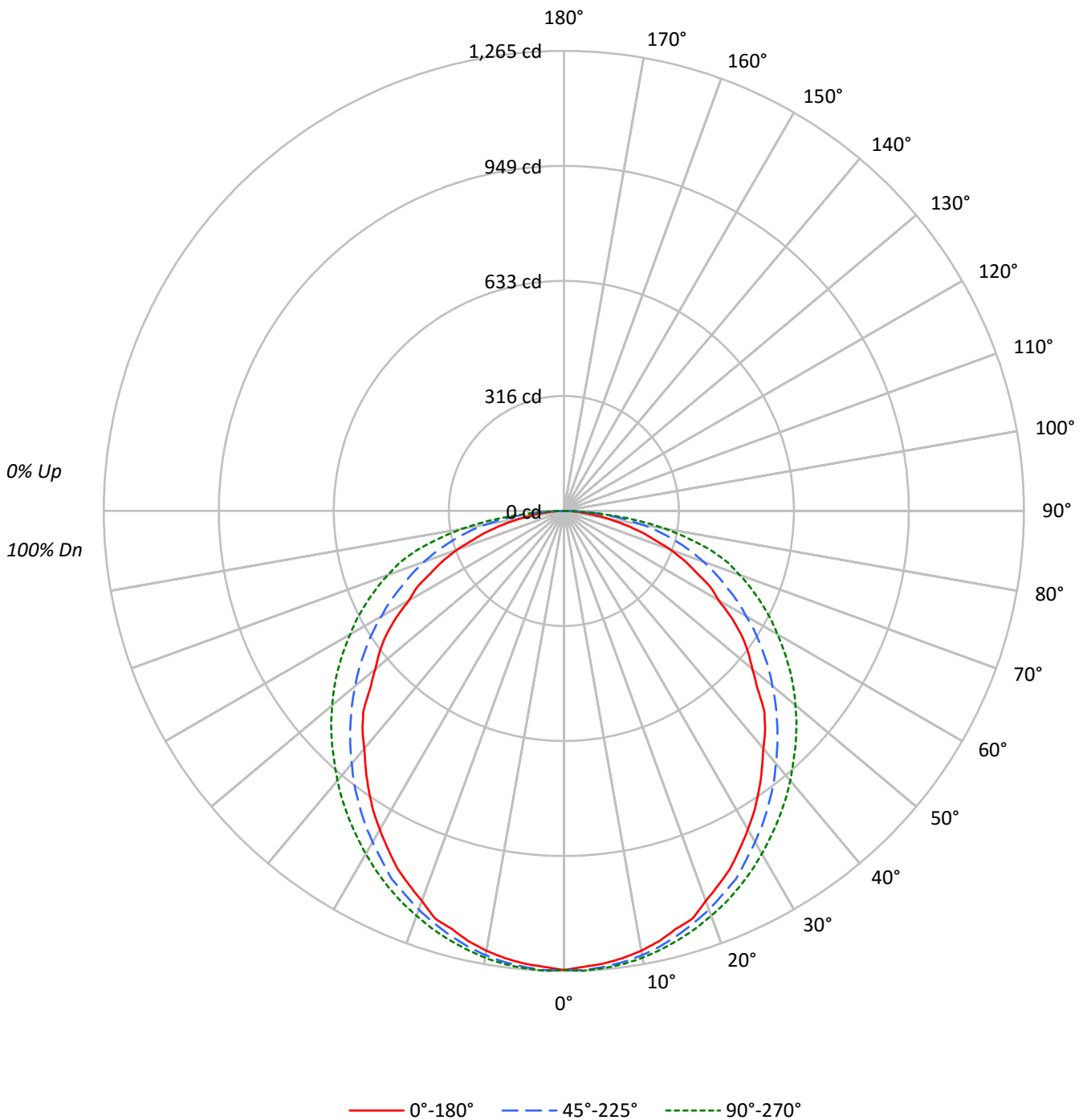
Lumens per Lamp: N/A
Luminaire Lumens: 3760.9 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 37.1
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°	3395	3395	3395
5°	3374	3399	3408
10°	3354	3389	3409
15°	3315	3365	3400
20°	3268	3340	3392
25°	3217	3319	3388
30°	3143	3266	3384
35°	3075	3229	3388
40°	2997	3187	3402
45°	2966	3158	3432
50°	2833	3135	3481
55°	2804	3125	3555
60°	2645	3119	3652
65°	2567	3140	3817
70°	2464	3215	4050
75°	2246	3313	4361
80°	1925	3431	4407
85°	1556	3279	3779



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.4	3.2
10°-20°	340.6	9.1
20°-30°	512.6	13.6
30°-40°	615.3	16.4
40°-50°	643.1	17.1
50°-60°	599.3	15.9
60°-70°	491.5	13.1
70°-80°	331.2	8.8
80°-90°	107.9	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°	972.6	25.9
0°-40°	1587.9	42.2
0°-60°	2830.3	75.3
0°-90°	3760.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3760.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1262	1262	1262	1262	1262	
5°	1249	1253	1258	1260	1262	119
15°	1190	1197	1208	1219	1220	336
25°	1084	1091	1118	1134	1141	498
35°	936	949	983	1017	1031	585
45°	779	785	830	880	902	595
55°	598	608	666	729	758	530
65°	403	421	493	565	599	401
75°	216	239	319	391	419	227
85°	50	72	106	124	122	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1261.8	1261.8	1261.8	1261.8	1261.8
2.5°	1254.6	1258.2	1263.6	1265.4	1265.4
5°	1249.2	1252.8	1258.2	1260.0	1261.8
7.5°	1240.2	1243.8	1251.0	1254.6	1256.4
10°	1227.6	1231.2	1240.2	1245.6	1247.4
12.5°	1211.4	1215.0	1225.8	1233.0	1234.8
15°	1189.8	1197.0	1207.8	1218.6	1220.4
17.5°	1175.4	1173.6	1188.0	1200.6	1204.2
20°	1141.2	1150.2	1166.4	1180.8	1184.4
22.5°	1112.4	1119.6	1141.2	1157.4	1164.6
25°	1083.6	1090.8	1117.8	1134.0	1141.2
27.5°	1047.6	1058.4	1083.6	1107.0	1116.0
30°	1011.6	1022.4	1051.2	1078.2	1089.0
32.5°	975.6	988.2	1018.8	1047.6	1060.2
35°	936.0	948.6	982.8	1017.0	1031.4
37.5°	894.6	910.8	946.8	984.6	1000.8
40°	853.2	869.4	907.2	950.4	968.4
42.5°	819.0	826.2	869.4	916.2	934.2
45°	779.4	784.8	829.8	880.2	901.8
47.5°	721.8	741.6	790.2	846.0	867.6
50°	676.8	698.4	748.8	808.2	831.6
52.5°	639.0	653.4	709.2	768.6	795.6
55°	597.6	608.4	666.0	729.0	757.8
57.5°	547.2	567.0	624.6	689.4	718.2
60°	491.4	516.6	579.6	649.8	678.6
62.5°	455.4	469.8	538.2	608.4	640.8
65°	403.2	421.2	493.2	565.2	599.4
67.5°	360.0	378.0	451.8	523.8	558.0
70°	313.2	331.2	408.6	480.6	514.8
72.5°	259.2	284.4	365.4	437.4	473.4
75°	216.0	239.4	318.6	390.6	419.4
77.5°	167.4	198.0	271.8	331.2	352.8
80°	124.2	154.8	221.4	264.6	284.4
82.5°	84.6	115.2	165.6	198.0	208.8
85°	50.4	72.0	106.2	124.2	122.4
87.5°	23.4	30.6	43.2	43.2	41.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)