

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: P308826

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-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: P308826
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-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: 3757.0 lumens
Efficiency: N/A
Efficacy: 101.8 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

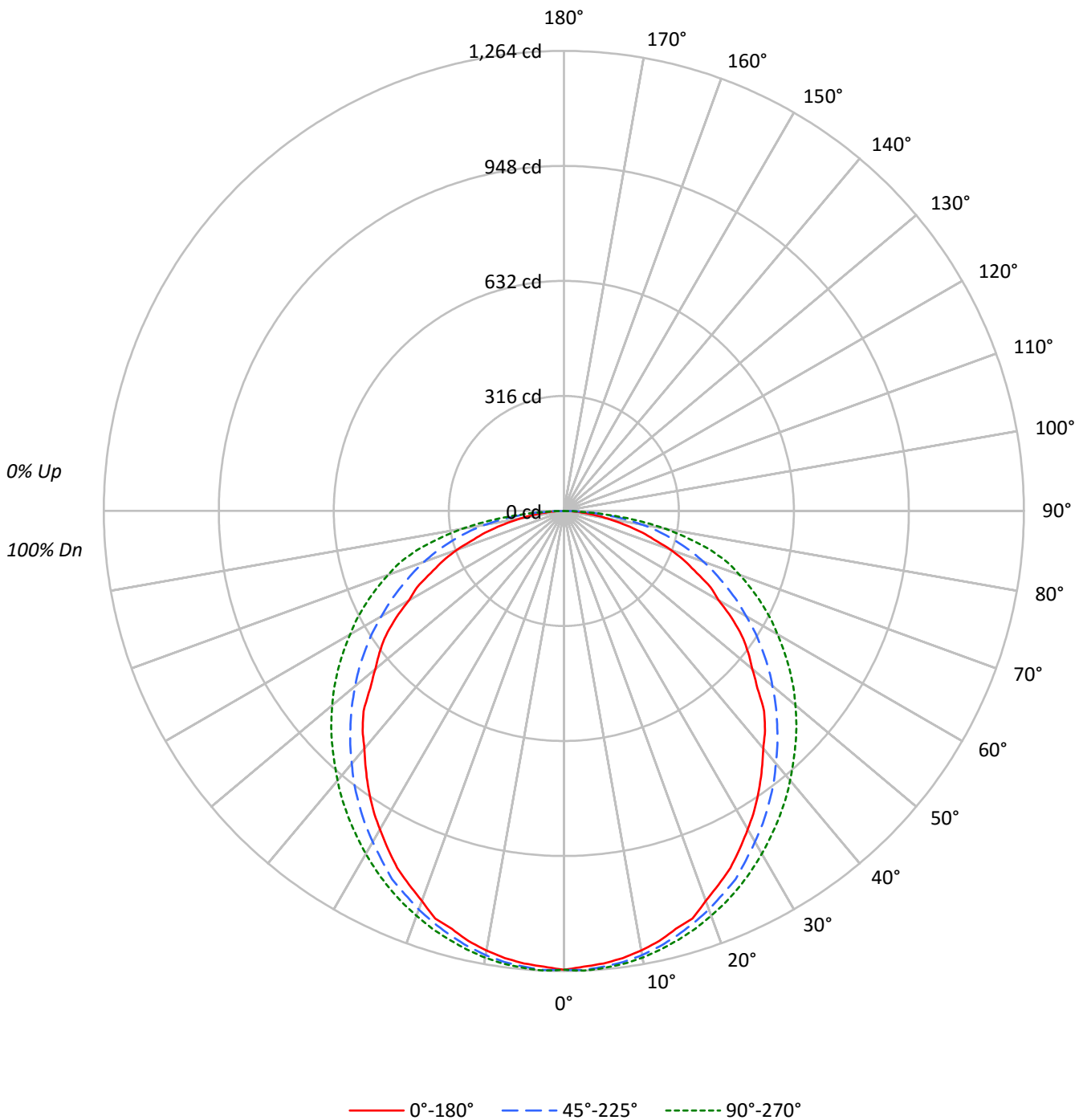
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3392	3392	3392
5°	3371	3395	3405
10°	3351	3385	3405
15°	3311	3361	3396
20°	3265	3337	3388
25°	3214	3316	3385
30°	3140	3263	3380
35°	3072	3225	3385
40°	2994	3184	3398
45°	2963	3154	3428
50°	2830	3131	3478
55°	2801	3121	3552
60°	2642	3116	3648
65°	2565	3137	3813
70°	2462	3212	4046
75°	2244	3309	4356
80°	1923	3428	4403
85°	1553	3276	3776



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.3	3.2
10°-20°	340.3	9.1
20°-30°	512.1	13.6
30°-40°	614.6	16.4
40°-50°	642.4	17.1
50°-60°	598.7	15.9
60°-70°	491.0	13.1
70°-80°	330.9	8.8
80°-90°	107.8	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°	971.6	25.9
0°-40°	1586.3	42.2
0°-60°	2827.4	75.3
0°-90°	3757.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3757.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1248	1252	1257	1259	1260	118
15°	1189	1196	1207	1217	1219	336
25°	1082	1090	1117	1133	1140	498
35°	935	948	982	1016	1030	585
45°	779	784	829	879	901	595
55°	597	608	665	728	757	529
65°	403	421	493	565	599	401
75°	216	239	318	390	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°	1260.5	1260.5	1260.5	1260.5	1260.5
2.5°	1253.3	1256.9	1262.3	1264.1	1264.1
5°	1247.9	1251.5	1256.9	1258.7	1260.5
7.5°	1238.9	1242.5	1249.7	1253.3	1255.1
10°	1226.3	1229.9	1238.9	1244.3	1246.1
12.5°	1210.2	1213.8	1224.5	1231.7	1233.5
15°	1188.6	1195.8	1206.6	1217.3	1219.1
17.5°	1174.2	1172.4	1186.8	1199.4	1203.0
20°	1140.0	1149.0	1165.2	1179.6	1183.2
22.5°	1111.3	1118.5	1140.0	1156.2	1163.4
25°	1082.5	1089.7	1116.7	1132.8	1140.0
27.5°	1046.5	1057.3	1082.5	1105.9	1114.9
30°	1010.6	1021.4	1050.1	1077.1	1087.9
32.5°	974.6	987.2	1017.8	1046.5	1059.1
35°	935.0	947.6	981.8	1016.0	1030.3
37.5°	893.7	909.9	945.8	983.6	999.8
40°	852.3	868.5	906.3	949.4	967.4
42.5°	818.2	825.4	868.5	915.3	933.2
45°	778.6	784.0	828.9	879.3	900.9
47.5°	721.1	740.8	789.4	845.1	866.7
50°	676.1	697.7	748.0	807.4	830.7
52.5°	638.3	652.7	708.5	767.8	794.8
55°	597.0	607.8	665.3	728.3	757.0
57.5°	546.6	566.4	624.0	688.7	717.5
60°	490.9	516.1	579.0	649.1	677.9
62.5°	454.9	469.3	537.6	607.8	640.1
65°	402.8	420.8	492.7	564.6	598.8
67.5°	359.6	377.6	451.3	523.3	557.4
70°	312.9	330.9	408.2	480.1	514.3
72.5°	258.9	284.1	365.0	437.0	472.9
75°	215.8	239.2	318.3	390.2	419.0
77.5°	167.2	197.8	271.5	330.9	352.4
80°	124.1	154.6	221.2	264.3	284.1
82.5°	84.5	115.1	165.4	197.8	208.6
85°	50.3	71.9	106.1	124.1	122.3
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)