

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: P308862

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CP250-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: P308862
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-CP250-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" 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: 3487.0 lumens
Efficiency: N/A
Efficacy: 94.5 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

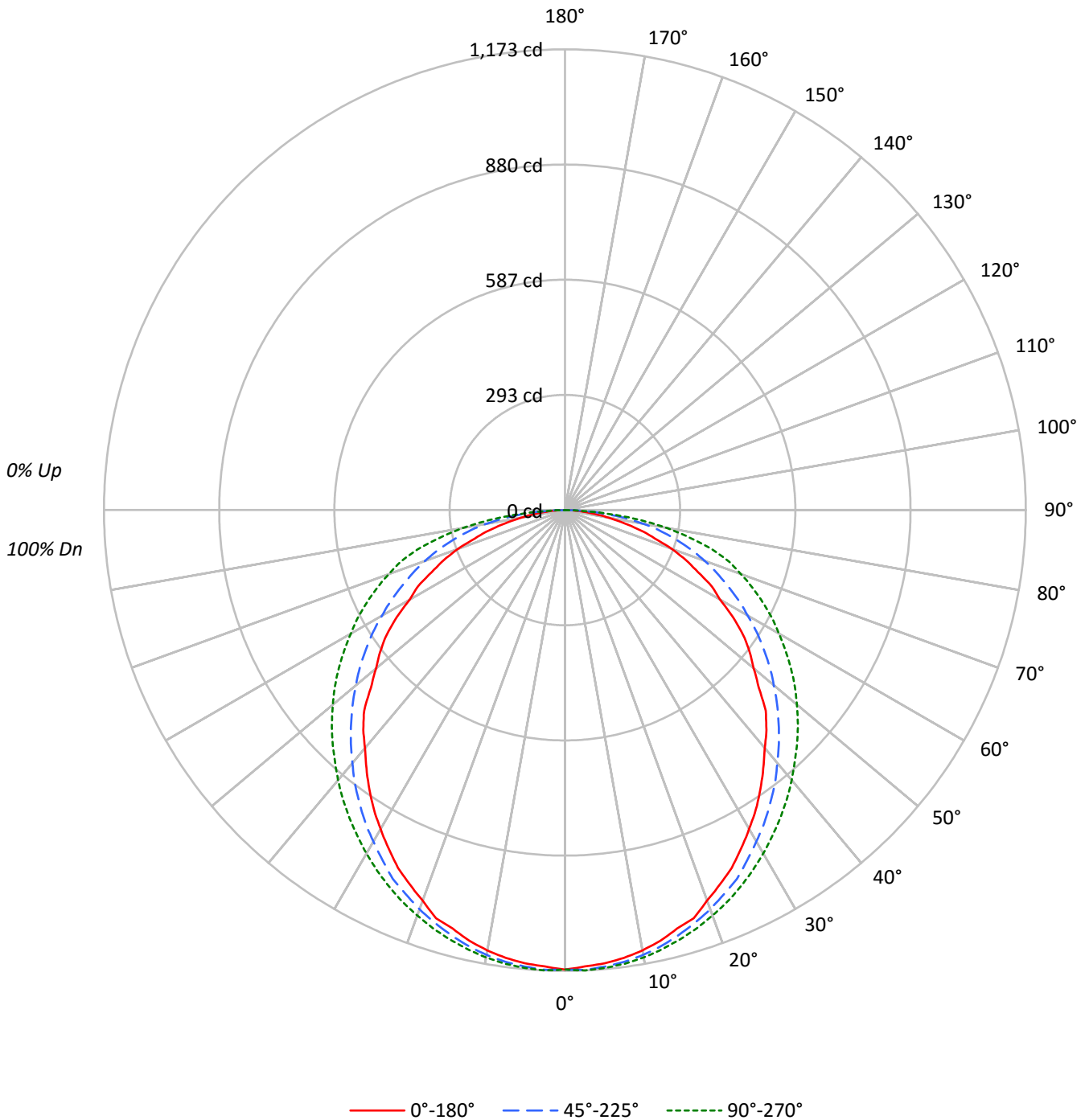
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3148	3148	3148
5°	3129	3151	3160
10°	3110	3142	3160
15°	3073	3120	3152
20°	3030	3097	3145
25°	2983	3077	3142
30°	2914	3029	3137
35°	2851	2993	3142
40°	2779	2955	3154
45°	2750	2928	3182
50°	2627	2907	3228
55°	2600	2897	3296
60°	2452	2892	3386
65°	2380	2912	3539
70°	2285	2980	3755
75°	2083	3071	4043
80°	1785	3181	4086
85°	1442	3041	3504



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.7	3.2
10°-20°	315.8	9.1
20°-30°	475.3	13.6
30°-40°	570.5	16.4
40°-50°	596.2	17.1
50°-60°	555.7	15.9
60°-70°	455.7	13.1
70°-80°	307.1	8.8
80°-90°	100.0	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°	901.8	25.9
0°-40°	1472.3	42.2
0°-60°	2624.2	75.3
0°-90°	3487.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3487.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1158	1162	1167	1168	1170	110
15°	1103	1110	1120	1130	1132	312
25°	1005	1011	1036	1051	1058	462
35°	868	880	911	943	956	543
45°	723	728	769	816	836	552
55°	554	564	618	676	703	491
65°	374	390	457	524	556	372
75°	200	222	295	362	389	211
85°	47	67	98	115	114	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1169.9	1169.9	1169.9	1169.9	1169.9
2.5°	1163.2	1166.6	1171.6	1173.3	1173.3
5°	1158.2	1161.6	1166.6	1168.2	1169.9
7.5°	1149.9	1153.2	1159.9	1163.2	1164.9
10°	1138.2	1141.5	1149.9	1154.9	1156.6
12.5°	1123.2	1126.5	1136.5	1143.2	1144.9
15°	1103.2	1109.8	1119.9	1129.9	1131.5
17.5°	1089.8	1088.1	1101.5	1113.2	1116.5
20°	1058.1	1066.4	1081.5	1094.8	1098.2
22.5°	1031.4	1038.1	1058.1	1073.1	1079.8
25°	1004.7	1011.4	1036.4	1051.4	1058.1
27.5°	971.3	981.3	1004.7	1026.4	1034.7
30°	937.9	948.0	974.7	999.7	1009.7
32.5°	904.6	916.2	944.6	971.3	983.0
35°	867.8	879.5	911.2	942.9	956.3
37.5°	829.5	844.5	877.9	912.9	927.9
40°	791.1	806.1	841.1	881.2	897.9
42.5°	759.4	766.0	806.1	849.5	866.2
45°	722.6	727.7	769.4	816.1	836.1
47.5°	669.2	687.6	732.7	784.4	804.4
50°	627.5	647.5	694.3	749.3	771.0
52.5°	592.5	605.8	657.6	712.6	737.7
55°	554.1	564.1	617.5	675.9	702.6
57.5°	507.4	525.7	579.1	639.2	665.9
60°	455.6	479.0	537.4	602.5	629.2
62.5°	422.2	435.6	499.0	564.1	594.1
65°	373.8	390.5	457.3	524.0	555.8
67.5°	333.8	350.5	418.9	485.7	517.4
70°	290.4	307.1	378.8	445.6	477.3
72.5°	240.3	263.7	338.8	405.5	438.9
75°	200.3	222.0	295.4	362.2	388.9
77.5°	155.2	183.6	252.0	307.1	327.1
80°	115.2	143.5	205.3	245.3	263.7
82.5°	78.4	106.8	153.5	183.6	193.6
85°	46.7	66.8	98.5	115.2	113.5
87.5°	21.7	28.4	40.1	40.1	38.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)