

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: P308796

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CA125-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: P308796
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: 22FCZ2-39HE-UNV-L82765-CA125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" 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: 3685.0 lumens
Efficiency: N/A
Efficacy: 110.7 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

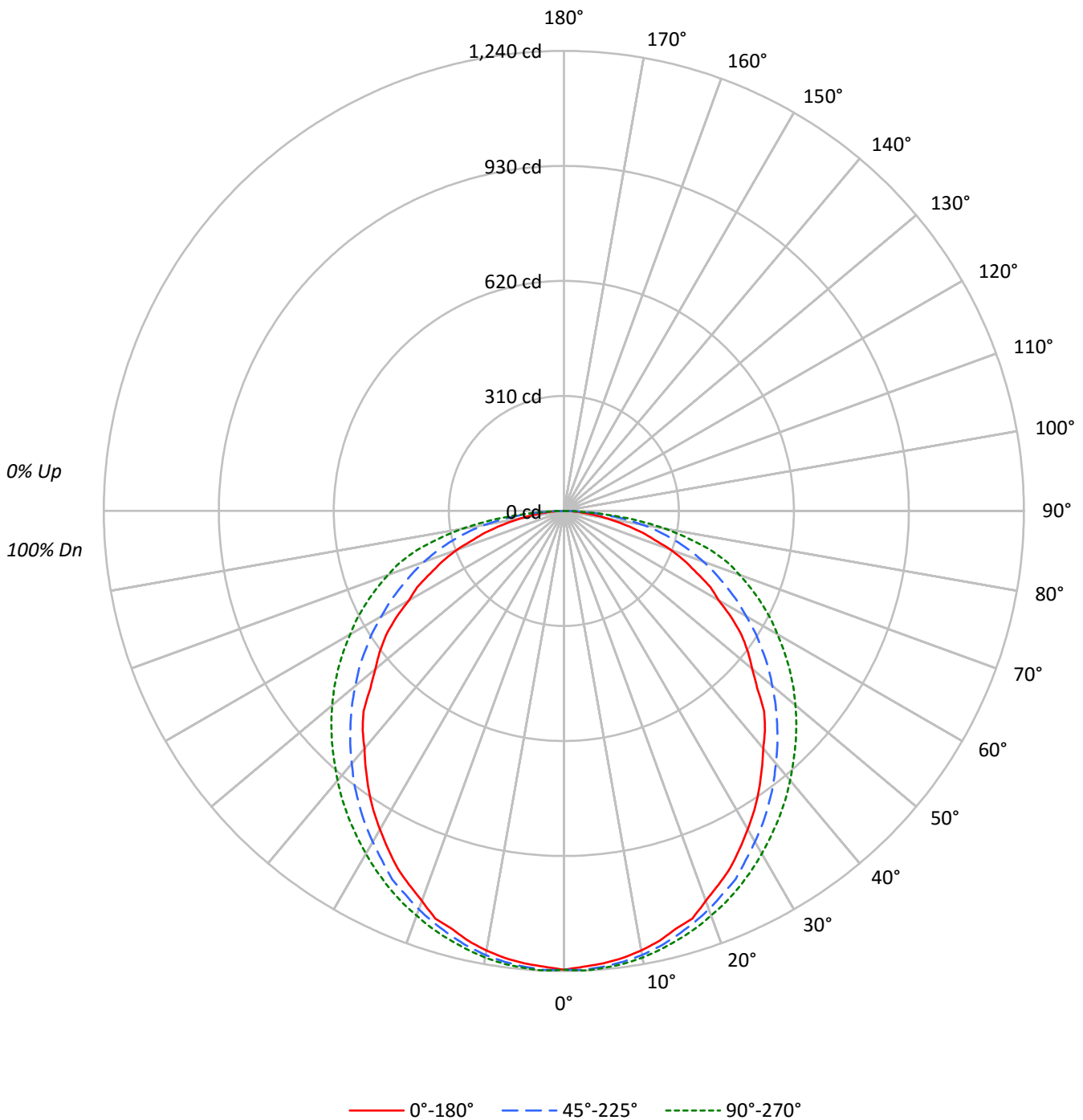
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3327	3327	3327
5°	3306	3330	3340
10°	3287	3321	3340
15°	3248	3297	3331
20°	3202	3273	3323
25°	3152	3252	3320
30°	3080	3200	3315
35°	3013	3164	3320
40°	2937	3123	3333
45°	2906	3094	3363
50°	2776	3072	3411
55°	2747	3062	3483
60°	2591	3056	3578
65°	2516	3077	3740
70°	2415	3150	3969
75°	2200	3246	4272
80°	1886	3361	4319
85°	1525	3214	3702



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.0	3.2
10°-20°	333.7	9.1
20°-30°	502.3	13.6
30°-40°	602.9	16.4
40°-50°	630.1	17.1
50°-60°	587.2	15.9
60°-70°	481.6	13.1
70°-80°	324.5	8.8
80°-90°	105.7	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°	953.0	25.9
0°-40°	1555.9	42.2
0°-60°	2773.2	75.3
0°-90°	3685.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3685.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1236	1236	1236	1236	1236	
5°	1224	1228	1233	1235	1236	116
15°	1166	1173	1183	1194	1196	329
25°	1062	1069	1095	1111	1118	488
35°	917	930	963	996	1011	573
45°	764	769	813	862	884	583
55°	586	596	653	714	742	519
65°	395	413	483	554	587	393
75°	212	235	312	383	411	222
85°	49	70	104	122	120	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1236.3	1236.3	1236.3	1236.3	1236.3
2.5°	1229.3	1232.8	1238.1	1239.9	1239.9
5°	1224.0	1227.5	1232.8	1234.6	1236.3
7.5°	1215.2	1218.7	1225.8	1229.3	1231.1
10°	1202.8	1206.4	1215.2	1220.5	1222.2
12.5°	1187.0	1190.5	1201.1	1208.1	1209.9
15°	1165.8	1172.9	1183.4	1194.0	1195.8
17.5°	1151.7	1149.9	1164.0	1176.4	1179.9
20°	1118.2	1127.0	1142.9	1157.0	1160.5
22.5°	1090.0	1097.0	1118.2	1134.1	1141.1
25°	1061.7	1068.8	1095.3	1111.1	1118.2
27.5°	1026.5	1037.1	1061.7	1084.7	1093.5
30°	991.2	1001.8	1030.0	1056.5	1067.0
32.5°	955.9	968.3	998.3	1026.5	1038.8
35°	917.1	929.5	963.0	996.5	1010.6
37.5°	876.6	892.4	927.7	964.7	980.6
40°	836.0	851.9	888.9	931.2	948.9
42.5°	802.5	809.5	851.9	897.7	915.4
45°	763.7	769.0	813.1	862.4	883.6
47.5°	707.2	726.6	774.3	828.9	850.1
50°	663.1	684.3	733.7	791.9	814.8
52.5°	626.1	640.2	694.9	753.1	779.6
55°	585.5	596.1	652.6	714.3	742.5
57.5°	536.2	555.6	612.0	675.5	703.7
60°	481.5	506.2	567.9	636.7	664.9
62.5°	446.2	460.3	527.3	596.1	627.9
65°	395.1	412.7	483.3	553.8	587.3
67.5°	352.7	370.4	442.7	513.2	546.7
70°	306.9	324.5	400.4	470.9	504.4
72.5°	254.0	278.7	358.0	428.6	463.9
75°	211.6	234.6	312.2	382.7	410.9
77.5°	164.0	194.0	266.3	324.5	345.7
80°	121.7	151.7	216.9	259.3	278.7
82.5°	82.9	112.9	162.3	194.0	204.6
85°	49.4	70.5	104.1	121.7	119.9
87.5°	22.9	30.0	42.3	42.3	40.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)