

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: P308864

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CP250-W2A-U-4000K**

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: P308864
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-4000K
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: 3687.0 lumens
Efficiency: N/A
Efficacy: 98.1 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

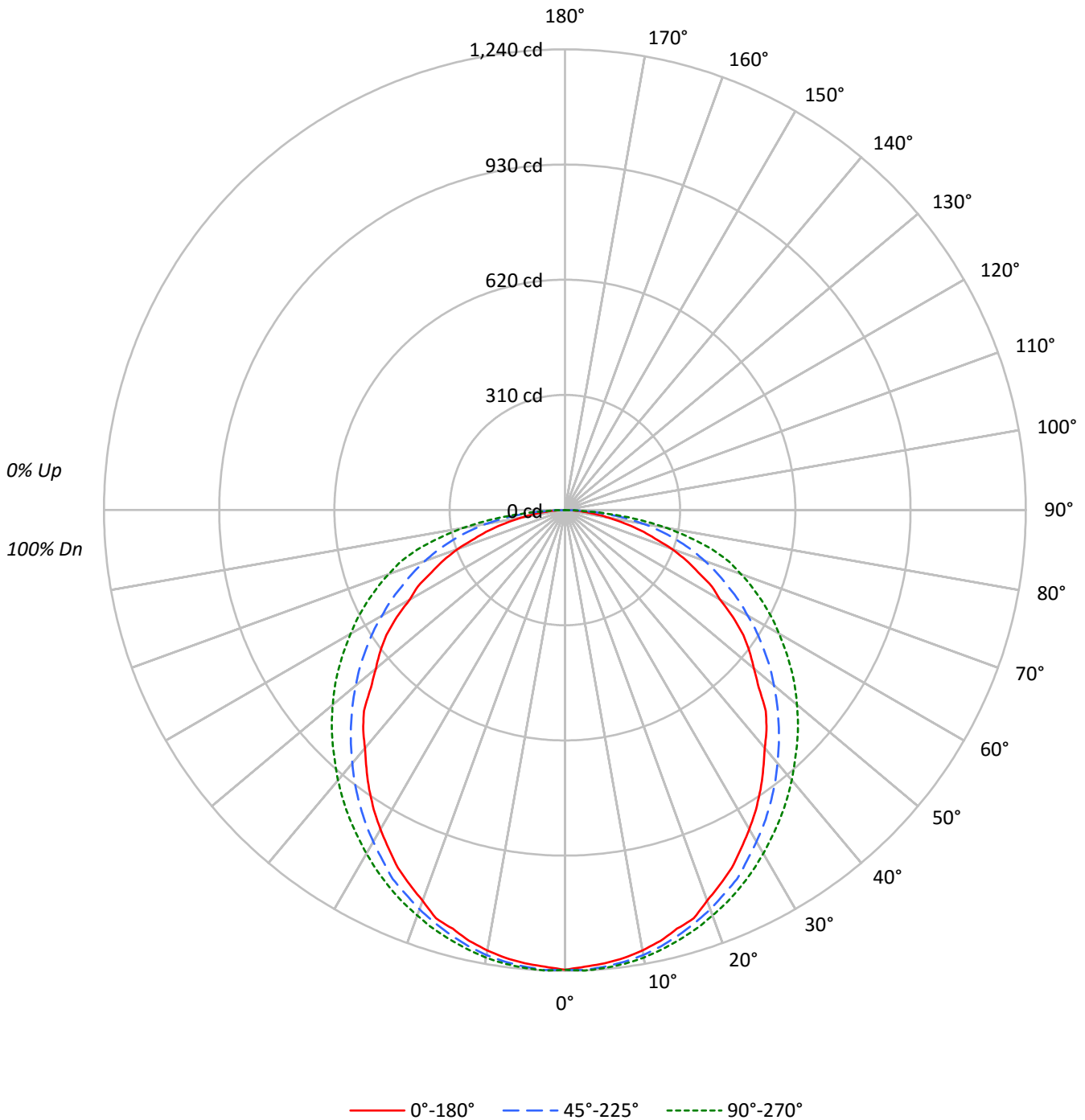
Input Watts (W): 37.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3329	3329	3329
5°	3308	3332	3341
10°	3289	3322	3342
15°	3249	3299	3333
20°	3204	3275	3325
25°	3154	3254	3322
30°	3081	3202	3317
35°	3014	3165	3322
40°	2938	3124	3335
45°	2908	3096	3365
50°	2778	3073	3413
55°	2749	3063	3485
60°	2592	3058	3581
65°	2517	3079	3741
70°	2415	3152	3971
75°	2202	3247	4275
80°	1888	3364	4320
85°	1525	3214	3705



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.1	3.2
10°-20°	333.9	9.1
20°-30°	502.6	13.6
30°-40°	603.2	16.4
40°-50°	630.4	17.1
50°-60°	587.5	15.9
60°-70°	481.9	13.1
70°-80°	324.7	8.8
80°-90°	105.8	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°	953.5	25.9
0°-40°	1556.7	42.2
0°-60°	2774.7	75.3
0°-90°	3687.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3687.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1225	1228	1234	1235	1237	116
15°	1166	1174	1184	1195	1196	330
25°	1062	1069	1096	1112	1119	488
35°	918	930	964	997	1011	574
45°	764	769	814	863	884	584
55°	586	596	653	715	743	519
65°	395	413	484	554	588	393
75°	212	235	312	383	411	223
85°	49	71	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°	1237.0	1237.0	1237.0	1237.0	1237.0
2.5°	1230.0	1233.5	1238.8	1240.5	1240.5
5°	1224.7	1228.2	1233.5	1235.3	1237.0
7.5°	1215.8	1219.4	1226.4	1230.0	1231.7
10°	1203.5	1207.0	1215.8	1221.1	1222.9
12.5°	1187.6	1191.1	1201.7	1208.8	1210.6
15°	1166.4	1173.5	1184.1	1194.7	1196.4
17.5°	1152.3	1150.6	1164.7	1177.0	1180.6
20°	1118.8	1127.6	1143.5	1157.6	1161.1
22.5°	1090.6	1097.6	1118.8	1134.7	1141.7
25°	1062.3	1069.4	1095.8	1111.7	1118.8
27.5°	1027.0	1037.6	1062.3	1085.3	1094.1
30°	991.7	1002.3	1030.6	1057.0	1067.6
32.5°	956.4	968.8	998.8	1027.0	1039.4
35°	917.6	930.0	963.5	997.0	1011.1
37.5°	877.0	892.9	928.2	965.3	981.1
40°	836.4	852.3	889.4	931.7	949.4
42.5°	802.9	810.0	852.3	898.2	915.9
45°	764.1	769.4	813.5	862.9	884.1
47.5°	707.6	727.0	774.7	829.4	850.6
50°	663.5	684.7	734.1	792.3	815.3
52.5°	626.5	640.6	695.3	753.5	780.0
55°	585.9	596.5	652.9	714.7	742.9
57.5°	536.5	555.9	612.3	675.9	704.1
60°	481.7	506.5	568.2	637.0	665.3
62.5°	446.5	460.6	527.6	596.5	628.2
65°	395.3	412.9	483.5	554.1	587.6
67.5°	352.9	370.6	442.9	513.5	547.0
70°	307.0	324.7	400.6	471.2	504.7
72.5°	254.1	278.8	358.2	428.8	464.1
75°	211.8	234.7	312.3	382.9	411.2
77.5°	164.1	194.1	266.5	324.7	345.9
80°	121.8	151.8	217.1	259.4	278.8
82.5°	82.9	112.9	162.3	194.1	204.7
85°	49.4	70.6	104.1	121.8	120.0
87.5°	22.9	30.0	42.4	42.4	40.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)