

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: P312877

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-CP125-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: P312877
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-CP125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4000K 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: 4083.0 lumens
Efficiency: N/A
Efficacy: 107.2 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

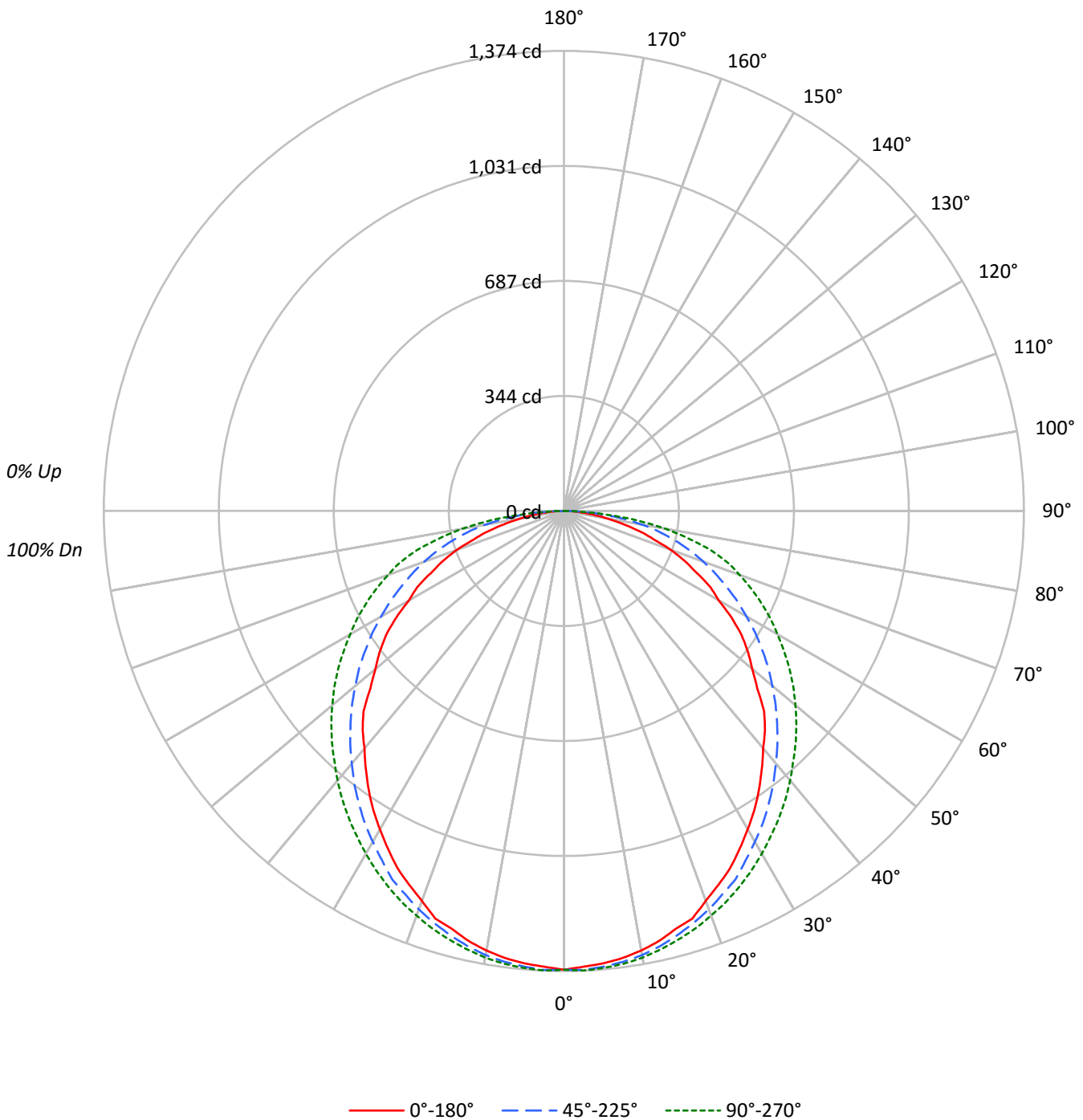
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3686	3686	3686
5°	3663	3690	3700
10°	3642	3679	3700
15°	3599	3653	3691
20°	3548	3626	3682
25°	3493	3603	3679
30°	3412	3546	3674
35°	3338	3505	3678
40°	3254	3460	3693
45°	3220	3428	3726
50°	3076	3403	3779
55°	3044	3392	3860
60°	2871	3386	3965
65°	2787	3409	4143
70°	2675	3490	4397
75°	2438	3596	4734
80°	2089	3725	4785
85°	1689	3560	4103



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.6	3.2
10°-20°	369.8	9.1
20°-30°	556.5	13.6
30°-40°	668.0	16.4
40°-50°	698.1	17.1
50°-60°	650.6	15.9
60°-70°	533.6	13.1
70°-80°	359.6	8.8
80°-90°	117.1	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°	1055.9	25.9
0°-40°	1723.9	42.2
0°-60°	3072.7	75.3
0°-90°	4083.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4083.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1370	1370	1370	1370	1370	
5°	1356	1360	1366	1368	1370	129
15°	1292	1300	1311	1323	1325	365
25°	1176	1184	1214	1231	1239	541
35°	1016	1030	1067	1104	1120	635
45°	846	852	901	956	979	646
55°	649	660	723	791	823	575
65°	438	457	535	614	651	435
75°	234	260	346	424	455	247
85°	55	78	115	135	133	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1369.9	1369.9	1369.9	1369.9	1369.9
2.5°	1362.1	1366.0	1371.8	1373.8	1373.8
5°	1356.2	1360.1	1366.0	1367.9	1369.9
7.5°	1346.4	1350.3	1358.2	1362.1	1364.0
10°	1332.8	1336.7	1346.4	1352.3	1354.2
12.5°	1315.2	1319.1	1330.8	1338.6	1340.6
15°	1291.7	1299.5	1311.3	1323.0	1324.9
17.5°	1276.1	1274.1	1289.8	1303.4	1307.3
20°	1239.0	1248.7	1266.3	1281.9	1285.9
22.5°	1207.7	1215.5	1239.0	1256.5	1264.4
25°	1176.4	1184.2	1213.5	1231.1	1239.0
27.5°	1137.3	1149.1	1176.4	1201.8	1211.6
30°	1098.2	1110.0	1141.2	1170.6	1182.3
32.5°	1059.2	1072.8	1106.1	1137.3	1151.0
35°	1016.2	1029.9	1067.0	1104.1	1119.7
37.5°	971.2	988.8	1027.9	1068.9	1086.5
40°	926.3	943.9	984.9	1031.8	1051.3
42.5°	889.2	897.0	943.9	994.7	1014.2
45°	846.2	852.0	900.9	955.6	979.0
47.5°	783.6	805.1	857.9	918.5	941.9
50°	734.8	758.2	812.9	877.4	902.8
52.5°	693.7	709.4	769.9	834.4	863.7
55°	648.8	660.5	723.0	791.4	822.7
57.5°	594.1	615.6	678.1	748.5	779.7
60°	533.5	560.9	629.2	705.5	736.7
62.5°	494.4	510.0	584.3	660.5	695.7
65°	437.7	457.3	535.4	613.6	650.7
67.5°	390.8	410.4	490.5	568.7	605.8
70°	340.0	359.6	443.6	521.8	558.9
72.5°	281.4	308.8	396.7	474.9	513.9
75°	234.5	259.9	345.9	424.1	455.3
77.5°	181.7	215.0	295.1	359.6	383.0
80°	134.8	168.1	240.4	287.3	308.8
82.5°	91.8	125.1	179.8	215.0	226.7
85°	54.7	78.2	115.3	134.8	132.9
87.5°	25.4	33.2	46.9	46.9	44.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)