

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: P312874

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-CA125-W2A-U-5000K**

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: P312874
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-CA125-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 5000K 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: 4203.0 lumens
Efficiency: N/A
Efficacy: 107.8 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

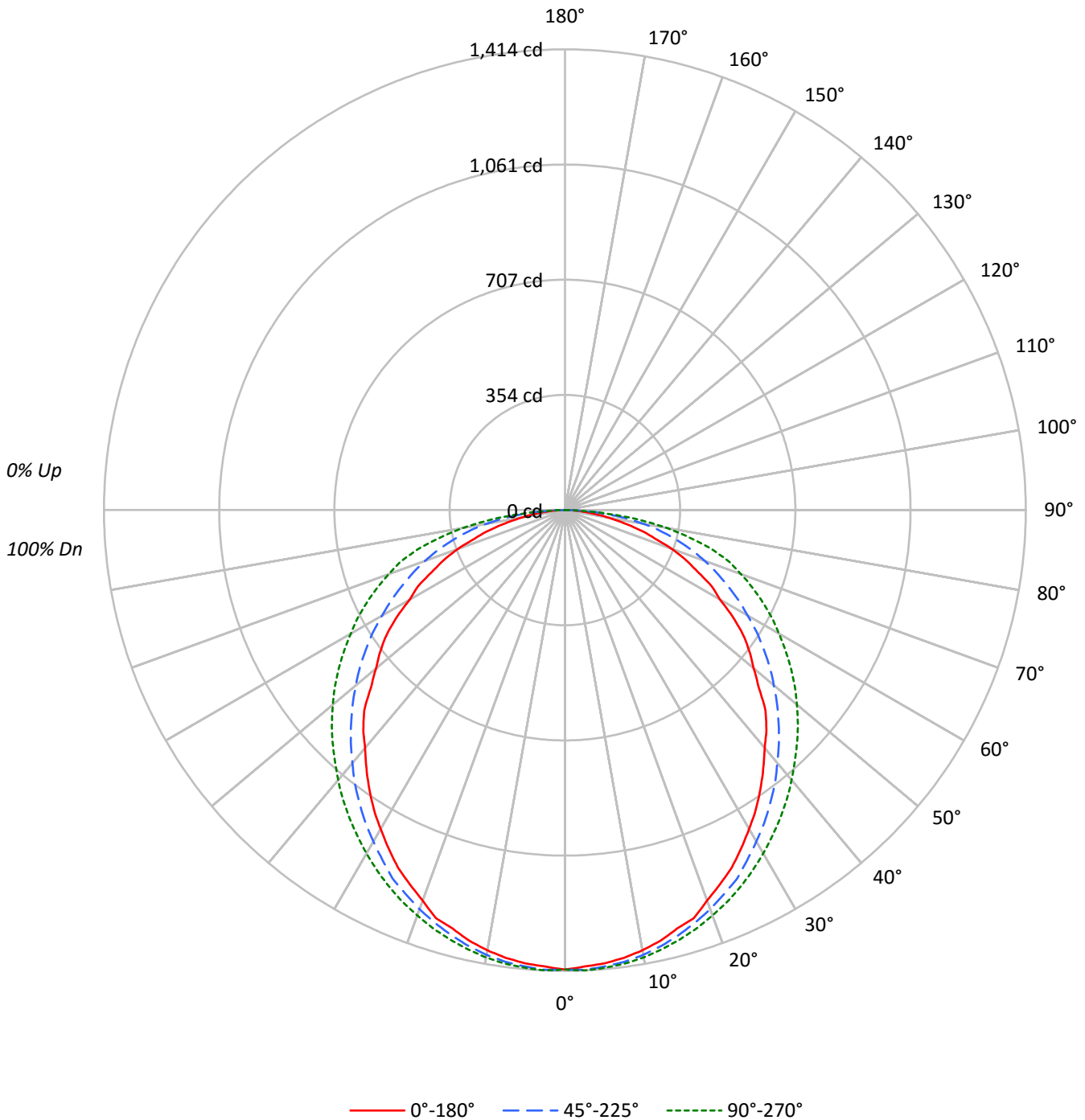
Input Watts (W): 39
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3795	3795	3795
5°	3771	3798	3809
10°	3749	3787	3809
15°	3704	3760	3800
20°	3652	3733	3790
25°	3596	3709	3787
30°	3513	3650	3782
35°	3436	3608	3787
40°	3349	3562	3802
45°	3315	3529	3835
50°	3167	3503	3891
55°	3134	3492	3973
60°	2956	3486	4082
65°	2869	3510	4266
70°	2754	3592	4526
75°	2510	3702	4873
80°	2151	3834	4925
85°	1738	3665	4224



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	3.2
10°-20°	380.6	9.1
20°-30°	572.9	13.6
30°-40°	687.6	16.4
40°-50°	718.7	17.1
50°-60°	669.7	15.9
60°-70°	549.3	13.1
70°-80°	370.1	8.8
80°-90°	120.6	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°	1087.0	25.9
0°-40°	1774.6	42.2
0°-60°	3163.0	75.3
0°-90°	4203.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4203.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1410	1410	1410	1410	1410	
5°	1396	1400	1406	1408	1410	133
15°	1330	1338	1350	1362	1364	376
25°	1211	1219	1249	1267	1275	557
35°	1046	1060	1098	1137	1153	654
45°	871	877	927	984	1008	665
55°	668	680	744	815	847	592
65°	451	471	551	632	670	448
75°	241	268	356	436	469	254
85°	56	80	119	139	137	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1410.1	1410.1	1410.1	1410.1	1410.1
2.5°	1402.1	1406.1	1412.2	1414.2	1414.2
5°	1396.1	1400.1	1406.1	1408.1	1410.1
7.5°	1386.0	1390.0	1398.1	1402.1	1404.1
10°	1371.9	1375.9	1386.0	1392.0	1394.0
12.5°	1353.8	1357.8	1369.9	1378.0	1380.0
15°	1329.7	1337.7	1349.8	1361.9	1363.9
17.5°	1313.6	1311.6	1327.7	1341.7	1345.8
20°	1275.4	1285.4	1303.5	1319.6	1323.6
22.5°	1243.2	1251.2	1275.4	1293.5	1301.5
25°	1211.0	1219.0	1249.2	1267.3	1275.4
27.5°	1170.8	1182.8	1211.0	1237.1	1247.2
30°	1130.5	1142.6	1174.8	1205.0	1217.0
32.5°	1090.3	1104.4	1138.6	1170.8	1184.8
35°	1046.0	1060.1	1098.3	1136.6	1152.7
37.5°	999.8	1017.9	1058.1	1100.4	1118.5
40°	953.5	971.6	1013.9	1062.1	1082.2
42.5°	915.3	923.3	971.6	1023.9	1044.0
45°	871.0	877.1	927.4	983.7	1007.8
47.5°	806.7	828.8	883.1	945.5	969.6
50°	756.4	780.5	836.8	903.2	929.4
52.5°	714.1	730.2	792.6	859.0	889.1
55°	667.9	679.9	744.3	814.7	846.9
57.5°	611.5	633.7	698.0	770.4	802.6
60°	549.2	577.3	647.7	726.2	758.4
62.5°	508.9	525.0	601.5	679.9	716.1
65°	450.6	470.7	551.2	631.6	669.9
67.5°	402.3	422.4	504.9	585.4	623.6
70°	350.0	370.1	456.6	537.1	575.3
72.5°	289.7	317.8	408.4	488.8	529.1
75°	241.4	267.5	356.1	436.5	468.7
77.5°	187.1	221.3	303.8	370.1	394.3
80°	138.8	173.0	247.4	295.7	317.8
82.5°	94.5	128.7	185.1	221.3	233.3
85°	56.3	80.5	118.7	138.8	136.8
87.5°	26.2	34.2	48.3	48.3	46.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)