

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: P309115

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP125-W2A-U-3500K**

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: P309115
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
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-S-CP125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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

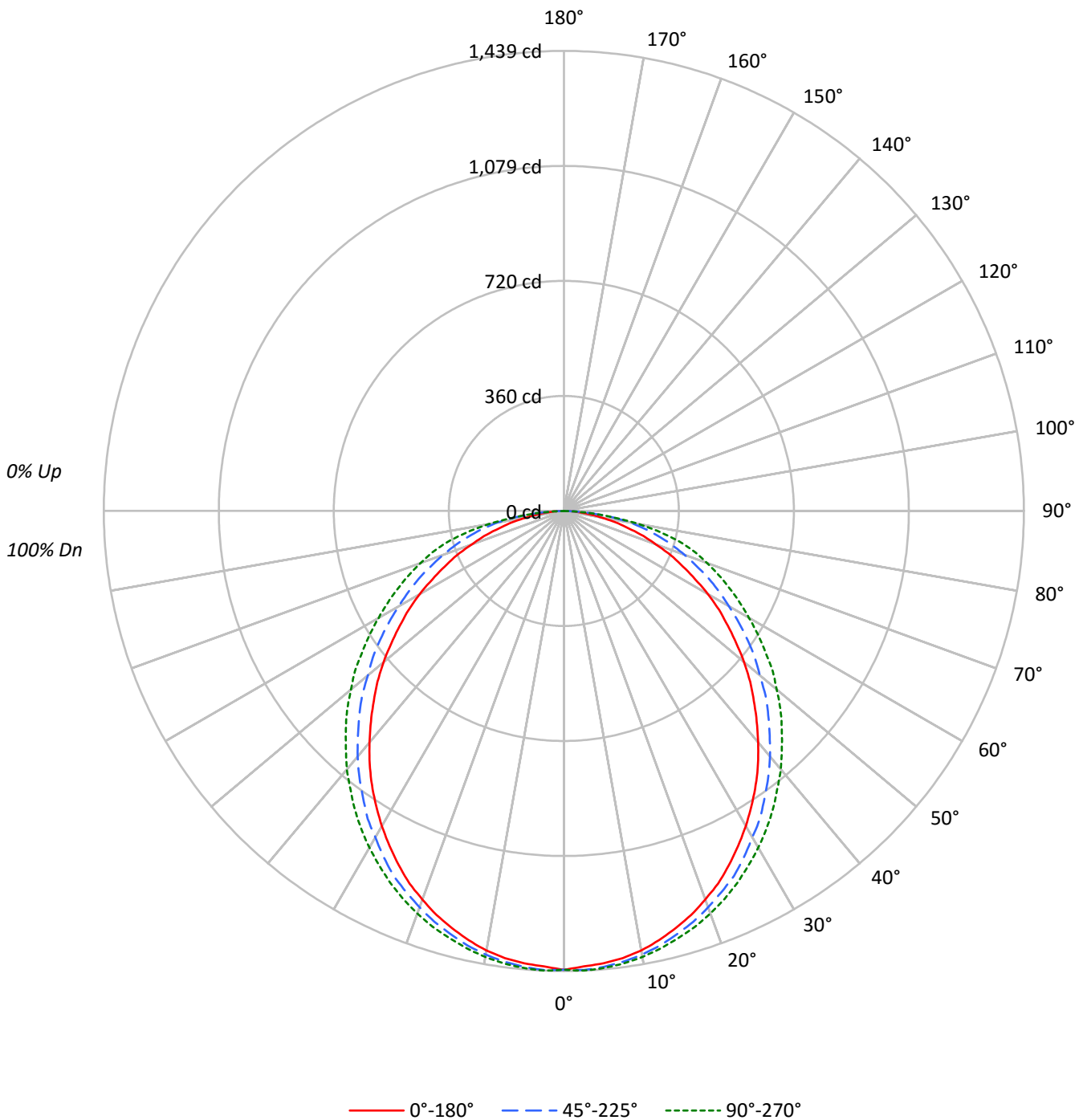
Lumens per Lamp: N/A
Luminaire Lumens: 4005.0 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 37.4
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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3862	3862	3862
5°	3836	3867	3877
10°	3814	3850	3870
15°	3764	3816	3852
20°	3703	3778	3837
25°	3629	3740	3812
30°	3536	3664	3780
35°	3438	3597	3745
40°	3321	3525	3709
45°	3200	3442	3669
50°	3082	3348	3638
55°	2937	3287	3612
60°	2806	3208	3601
65°	2618	3189	3641
70°	2412	3161	3749
75°	2176	3205	3944
80°	1883	3301	3707
85°	1559	2770	2770



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.7	3.4
10°-20°	386.2	9.6
20°-30°	577.9	14.4
30°-40°	684.4	17.1
40°-50°	697.5	17.4
50°-60°	625.1	15.6
60°-70°	489.4	12.2
70°-80°	315.6	7.9
80°-90°	93.2	2.3
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°	1099.8	27.5
0°-40°	1784.2	44.5
0°-60°	3106.8	77.6
0°-90°	4005.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4005.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1435	1435	1435	1435	1435	
5°	1420	1424	1431	1433	1435	135
15°	1351	1358	1370	1381	1383	381
25°	1222	1233	1260	1276	1284	563
35°	1046	1060	1095	1129	1140	654
45°	841	860	904	951	964	649
55°	626	646	701	749	770	561
65°	411	435	501	549	572	408
75°	209	241	308	361	379	224
85°	50	69	90	90	90	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1435.1	1435.1	1435.1	1435.1	1435.1
2.5°	1425.8	1429.5	1437.0	1438.9	1438.9
5°	1420.2	1423.9	1431.4	1433.2	1435.1
7.5°	1410.8	1412.7	1422.0	1425.8	1427.6
10°	1395.9	1399.6	1409.0	1414.6	1416.4
12.5°	1375.3	1380.9	1392.1	1399.6	1401.5
15°	1351.0	1358.5	1369.7	1380.9	1382.8
17.5°	1324.9	1332.3	1347.3	1360.4	1364.1
20°	1293.1	1302.4	1319.3	1334.2	1339.8
22.5°	1261.3	1268.8	1289.4	1308.0	1313.7
25°	1222.1	1233.3	1259.5	1276.3	1283.8
27.5°	1181.0	1194.1	1220.2	1242.6	1250.1
30°	1138.0	1151.1	1179.1	1207.1	1216.5
32.5°	1093.2	1108.1	1141.7	1169.8	1179.1
35°	1046.4	1059.5	1095.0	1128.7	1139.9
37.5°	997.9	1009.1	1050.2	1085.7	1096.9
40°	945.5	960.5	1003.5	1044.6	1055.8
42.5°	893.2	910.0	953.0	997.9	1009.1
45°	840.9	859.6	904.4	951.1	964.2
47.5°	790.4	805.4	855.8	900.7	919.4
50°	736.2	751.2	799.8	850.2	868.9
52.5°	680.2	700.7	753.1	801.6	824.1
55°	626.0	646.5	700.7	749.3	769.9
57.5°	575.5	592.4	648.4	698.9	719.4
60°	521.4	536.3	596.1	650.3	669.0
62.5°	463.4	485.8	547.5	598.0	620.4
65°	411.1	435.4	500.8	549.4	571.8
67.5°	362.5	384.9	448.5	500.8	525.1
70°	306.5	336.4	401.8	454.1	476.5
72.5°	261.6	287.8	355.0	407.4	431.7
75°	209.3	241.1	308.3	360.6	379.3
77.5°	166.3	198.1	261.6	302.7	312.1
80°	121.5	153.2	213.0	233.6	239.2
82.5°	82.2	112.1	153.2	158.8	160.7
85°	50.5	69.1	89.7	89.7	89.7
87.5°	24.3	28.0	31.8	29.9	29.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)