

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: P313026

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-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: P313026
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-L83050-S-CP125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3500K 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: 4101.0 lumens
Efficiency: N/A
Efficacy: 110.2 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

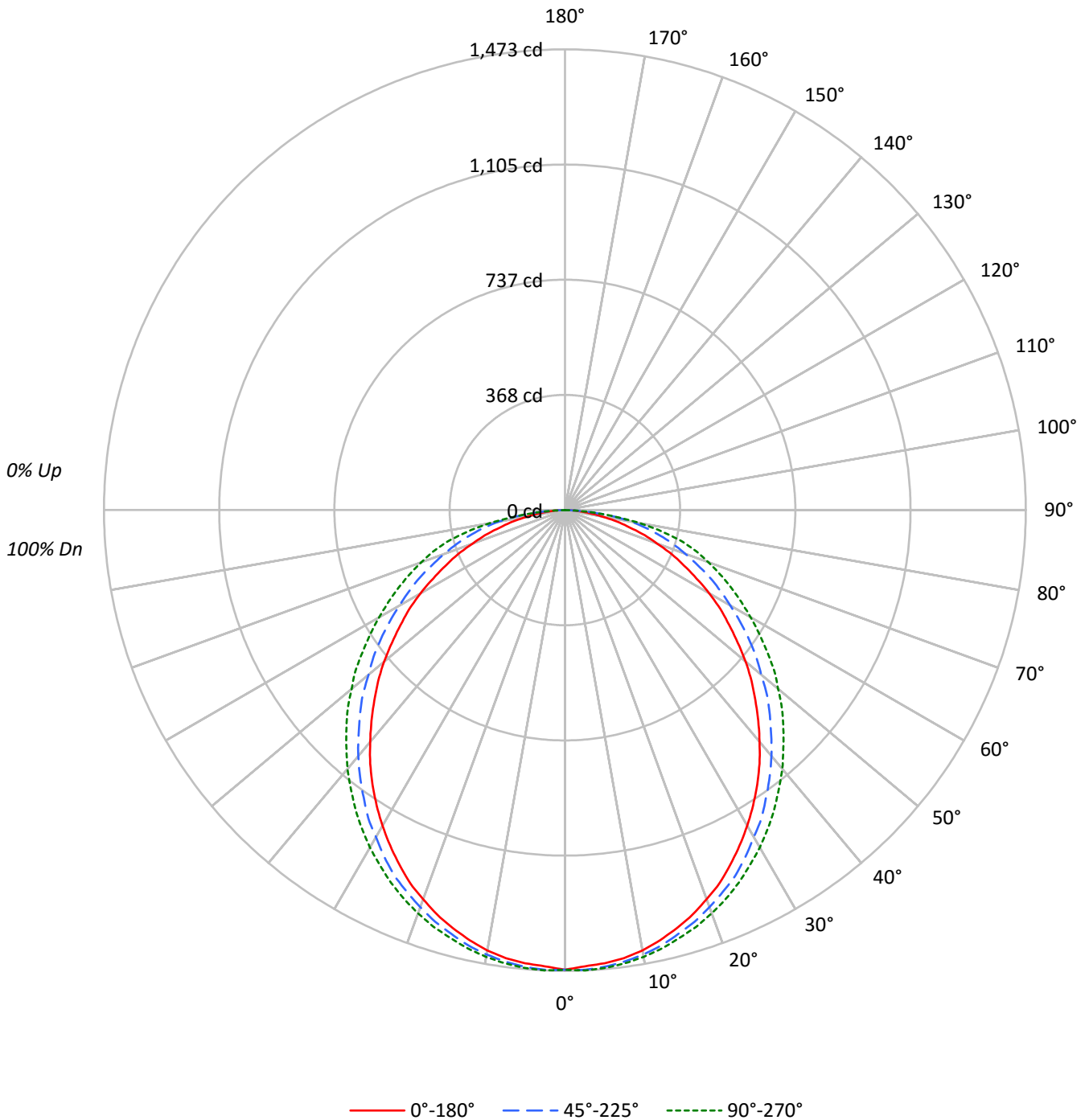
Input Watts (W): 37.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3954	3954	3954
5°	3928	3959	3969
10°	3906	3942	3963
15°	3854	3907	3945
20°	3792	3869	3929
25°	3716	3829	3903
30°	3621	3752	3870
35°	3520	3684	3834
40°	3401	3609	3798
45°	3277	3524	3757
50°	3156	3428	3725
55°	3007	3366	3698
60°	2873	3285	3687
65°	2681	3265	3728
70°	2469	3237	3839
75°	2228	3282	4038
80°	1928	3380	3795
85°	1596	2834	2834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.0	3.4
10°-20°	395.5	9.6
20°-30°	591.7	14.4
30°-40°	700.8	17.1
40°-50°	714.2	17.4
50°-60°	640.1	15.6
60°-70°	501.1	12.2
70°-80°	323.2	7.9
80°-90°	95.5	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°	1126.2	27.5
0°-40°	1827.0	44.5
0°-60°	3181.2	77.6
0°-90°	4101.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4101.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1470	1470	1470	1470	1470	
5°	1454	1458	1466	1468	1470	138
15°	1383	1391	1402	1414	1416	390
25°	1251	1263	1290	1307	1314	576
35°	1072	1085	1121	1156	1167	670
45°	861	880	926	974	987	665
55°	641	662	718	767	788	575
65°	421	446	513	562	586	418
75°	214	247	316	369	388	230
85°	52	71	92	92	92	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1469.5	1469.5	1469.5	1469.5	1469.5
2.5°	1459.9	1463.8	1471.4	1473.3	1473.3
5°	1454.2	1458.0	1465.7	1467.6	1469.5
7.5°	1444.6	1446.6	1456.1	1459.9	1461.9
10°	1429.3	1433.2	1442.7	1448.5	1450.4
12.5°	1408.3	1414.0	1425.5	1433.2	1435.1
15°	1383.4	1391.1	1402.5	1414.0	1415.9
17.5°	1356.6	1364.3	1379.6	1393.0	1396.8
20°	1324.1	1333.7	1350.9	1366.2	1371.9
22.5°	1291.6	1299.2	1320.3	1339.4	1345.1
25°	1251.4	1262.9	1289.7	1306.9	1314.5
27.5°	1209.3	1222.7	1249.5	1272.4	1280.1
30°	1165.3	1178.7	1207.4	1236.1	1245.6
32.5°	1119.4	1134.7	1169.1	1197.8	1207.4
35°	1071.5	1084.9	1121.3	1155.7	1167.2
37.5°	1021.8	1033.3	1075.3	1111.7	1123.2
40°	968.2	983.5	1027.5	1069.6	1081.1
42.5°	914.6	931.8	975.9	1021.8	1033.3
45°	861.0	880.2	926.1	973.9	987.3
47.5°	809.4	824.7	876.4	922.3	941.4
50°	753.9	769.2	818.9	870.6	889.7
52.5°	696.5	717.5	771.1	820.9	843.8
55°	641.0	662.0	717.5	767.3	788.3
57.5°	589.3	606.6	664.0	715.6	736.7
60°	533.8	549.2	610.4	665.9	685.0
62.5°	474.5	497.5	560.6	612.3	635.3
65°	421.0	445.8	512.8	562.5	585.5
67.5°	371.2	394.2	459.2	512.8	537.7
70°	313.8	344.4	411.4	465.0	487.9
72.5°	267.9	294.7	363.6	417.1	442.0
75°	214.3	246.8	315.7	369.3	388.4
77.5°	170.3	202.8	267.9	310.0	319.5
80°	124.4	156.9	218.1	239.2	244.9
82.5°	84.2	114.8	156.9	162.6	164.6
85°	51.7	70.8	91.8	91.8	91.8
87.5°	24.9	28.7	32.5	30.6	30.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)