

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: P309105

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CA125-W2A-U-3000K**

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: P309105
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-CA125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC 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

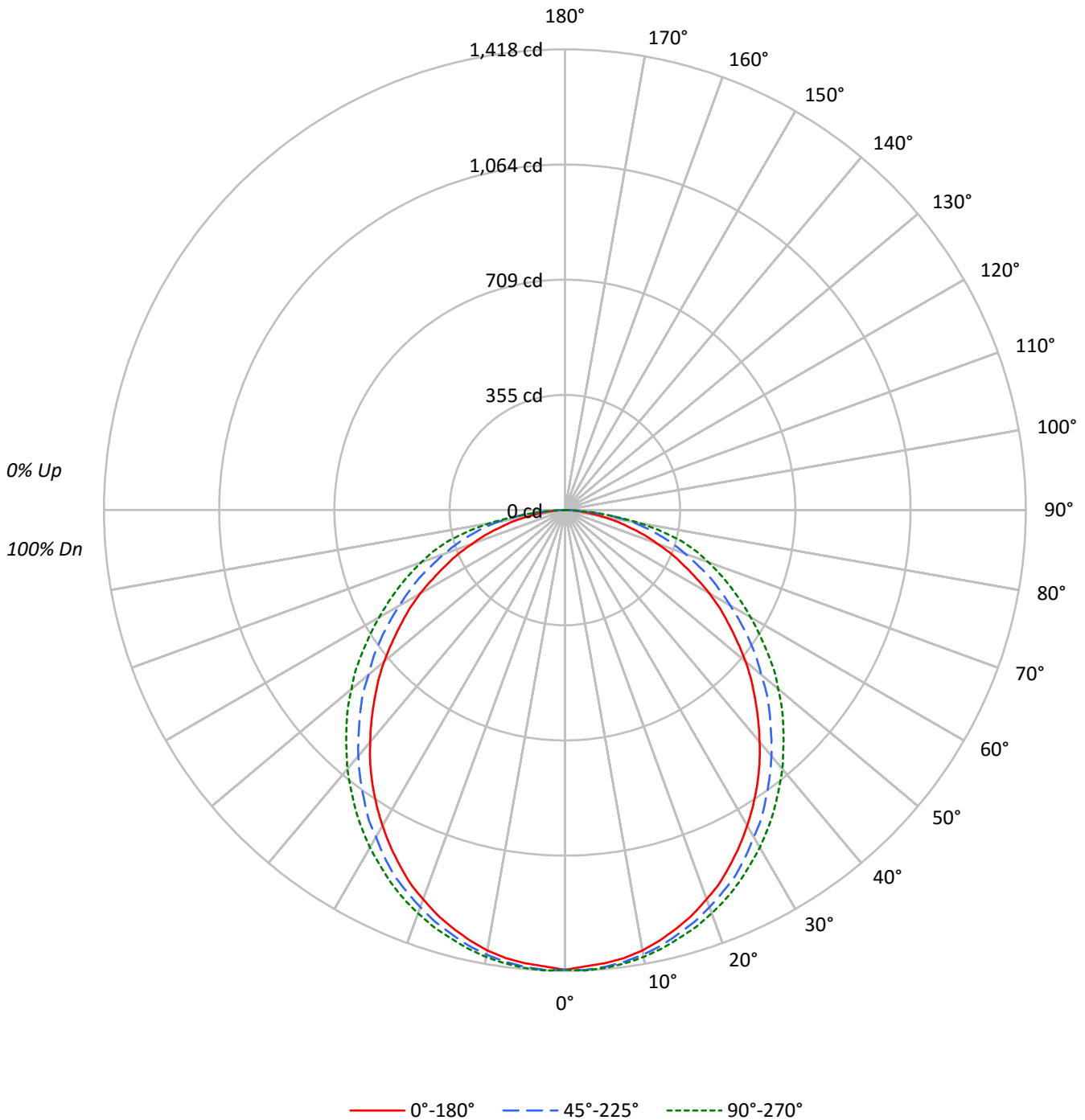
Lumens per Lamp: N/A
Luminaire Lumens: 3948.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 36.9
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°	3807	3807	3807
5°	3782	3811	3821
10°	3760	3795	3815
15°	3710	3762	3797
20°	3650	3724	3782
25°	3577	3686	3757
30°	3486	3612	3726
35°	3389	3546	3691
40°	3274	3475	3656
45°	3154	3393	3617
50°	3039	3301	3586
55°	2895	3241	3560
60°	2766	3162	3549
65°	2581	3144	3589
70°	2377	3116	3696
75°	2145	3160	3887
80°	1855	3254	3654
85°	1535	2729	2729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.8	3.4
10°-20°	380.7	9.6
20°-30°	569.7	14.4
30°-40°	674.6	17.1
40°-50°	687.5	17.4
50°-60°	616.2	15.6
60°-70°	482.5	12.2
70°-80°	311.1	7.9
80°-90°	91.9	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°	1084.2	27.5
0°-40°	1758.8	44.5
0°-60°	3062.5	77.6
0°-90°	3948.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3948.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1415	1415	1415	1415	1415	
5°	1400	1404	1411	1413	1415	133
15°	1332	1339	1350	1361	1363	375
25°	1205	1216	1242	1258	1266	555
35°	1032	1044	1079	1113	1124	645
45°	829	847	892	938	950	640
55°	617	637	691	739	759	553
65°	405	429	494	542	564	403
75°	206	238	304	356	374	221
85°	50	68	88	88	88	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1414.7	1414.7	1414.7	1414.7	1414.7
2.5°	1405.5	1409.2	1416.5	1418.4	1418.4
5°	1400.0	1403.6	1411.0	1412.8	1414.7
7.5°	1390.7	1392.6	1401.8	1405.5	1407.3
10°	1376.0	1379.7	1388.9	1394.4	1396.3
12.5°	1355.7	1361.3	1372.3	1379.7	1381.5
15°	1331.8	1339.2	1350.2	1361.3	1363.1
17.5°	1306.0	1313.4	1328.1	1341.0	1344.7
20°	1274.7	1283.9	1300.5	1315.2	1320.7
22.5°	1243.4	1250.7	1271.0	1289.4	1295.0
25°	1204.7	1215.8	1241.5	1258.1	1265.5
27.5°	1164.2	1177.1	1202.9	1225.0	1232.3
30°	1121.8	1134.7	1162.3	1190.0	1199.2
32.5°	1077.6	1092.3	1125.5	1153.1	1162.3
35°	1031.5	1044.4	1079.4	1112.6	1123.6
37.5°	983.7	994.7	1035.2	1070.2	1081.3
40°	932.1	946.8	989.2	1029.7	1040.8
42.5°	880.5	897.1	939.4	983.7	994.7
45°	828.9	847.3	891.6	937.6	950.5
47.5°	779.2	793.9	843.7	887.9	906.3
50°	725.8	740.5	788.4	838.1	856.6
52.5°	670.5	690.8	742.3	790.2	812.3
55°	617.1	637.3	690.8	738.7	758.9
57.5°	567.4	583.9	639.2	688.9	709.2
60°	513.9	528.7	587.6	641.0	659.5
62.5°	456.8	478.9	539.7	589.5	611.6
65°	405.3	429.2	493.7	541.6	563.7
67.5°	357.4	379.5	442.1	493.7	517.6
70°	302.1	331.6	396.0	447.6	469.7
72.5°	257.9	283.7	350.0	401.6	425.5
75°	206.3	237.6	303.9	355.5	373.9
77.5°	163.9	195.3	257.9	298.4	307.6
80°	119.7	151.0	210.0	230.3	235.8
82.5°	81.1	110.5	151.0	156.6	158.4
85°	49.7	68.2	88.4	88.4	88.4
87.5°	23.9	27.6	31.3	29.5	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)