

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: P312871

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-CA125-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: P312871
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-3500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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: 3965.0 lumens
Efficiency: N/A
Efficacy: 106.6 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

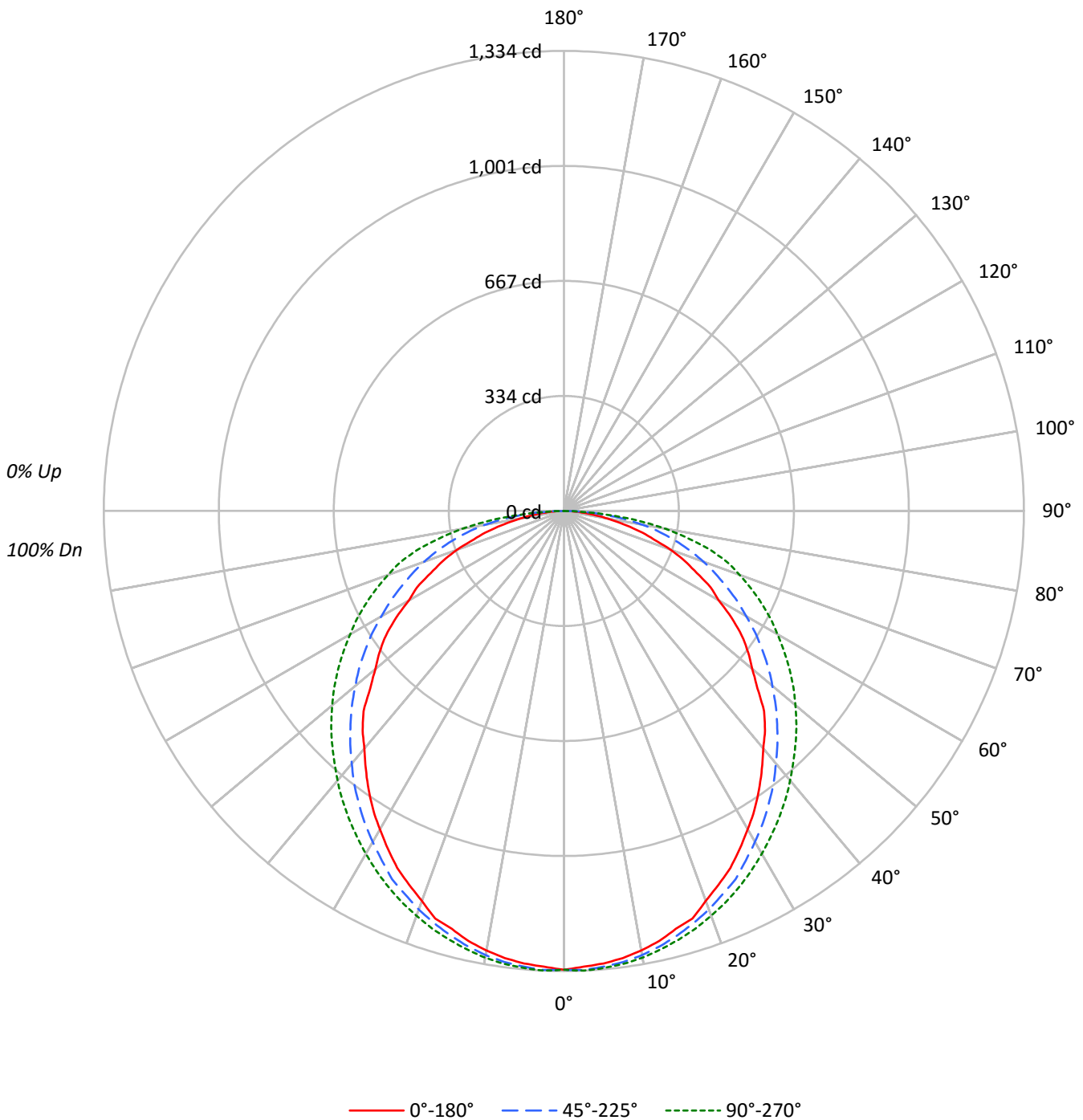
Input Watts (W): 37.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3580	3580	3580
5°	3558	3583	3593
10°	3536	3573	3593
15°	3495	3548	3584
20°	3445	3521	3576
25°	3392	3499	3572
30°	3314	3444	3567
35°	3242	3404	3572
40°	3160	3360	3587
45°	3127	3329	3618
50°	2987	3305	3670
55°	2956	3294	3748
60°	2788	3289	3850
65°	2707	3311	4024
70°	2598	3389	4270
75°	2367	3492	4598
80°	2029	3617	4646
85°	1639	3458	3983



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.9	3.2
10°-20°	359.1	9.1
20°-30°	540.5	13.6
30°-40°	648.7	16.4
40°-50°	678.0	17.1
50°-60°	631.8	15.9
60°-70°	518.2	13.1
70°-80°	349.2	8.8
80°-90°	113.7	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°	1025.4	25.9
0°-40°	1674.1	42.2
0°-60°	2983.9	75.3
0°-90°	3965.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3965.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1330	1330	1330	1330	1330	
5°	1317	1321	1326	1328	1330	125
15°	1254	1262	1273	1285	1287	354
25°	1142	1150	1178	1196	1203	525
35°	987	1000	1036	1072	1087	617
45°	822	827	875	928	951	628
55°	630	641	702	769	799	558
65°	425	444	520	596	632	423
75°	228	252	336	412	442	239
85°	53	76	112	131	129	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1330.3	1330.3	1330.3	1330.3	1330.3
2.5°	1322.7	1326.5	1332.2	1334.1	1334.1
5°	1317.0	1320.8	1326.5	1328.4	1330.3
7.5°	1307.5	1311.3	1318.9	1322.7	1324.6
10°	1294.2	1298.0	1307.5	1313.2	1315.1
12.5°	1277.2	1281.0	1292.3	1299.9	1301.8
15°	1254.4	1262.0	1273.4	1284.7	1286.6
17.5°	1239.2	1237.3	1252.5	1265.8	1269.6
20°	1203.1	1212.6	1229.7	1244.9	1248.7
22.5°	1172.8	1180.4	1203.1	1220.2	1227.8
25°	1142.4	1150.0	1178.5	1195.6	1203.1
27.5°	1104.5	1115.9	1142.4	1167.1	1176.6
30°	1066.5	1077.9	1108.3	1136.7	1148.1
32.5°	1028.6	1041.8	1074.1	1104.5	1117.7
35°	986.8	1000.1	1036.1	1072.2	1087.4
37.5°	943.2	960.2	998.2	1038.0	1055.1
40°	899.5	916.6	956.4	1002.0	1021.0
42.5°	863.5	871.0	916.6	965.9	984.9
45°	821.7	827.4	874.8	928.0	950.8
47.5°	761.0	781.9	833.1	891.9	914.7
50°	713.5	736.3	789.4	852.1	876.7
52.5°	673.7	688.9	747.7	810.3	838.8
55°	630.0	641.4	702.2	768.6	798.9
57.5°	576.9	597.8	658.5	726.8	757.2
60°	518.1	544.6	611.1	685.1	715.4
62.5°	480.1	495.3	567.4	641.4	675.6
65°	425.1	444.1	520.0	595.9	631.9
67.5°	379.5	398.5	476.3	552.2	588.3
70°	330.2	349.2	430.8	506.7	542.7
72.5°	273.3	299.8	385.2	461.1	499.1
75°	227.7	252.4	335.9	411.8	442.2
77.5°	176.5	208.7	286.6	349.2	372.0
80°	130.9	163.2	233.4	279.0	299.8
82.5°	89.2	121.5	174.6	208.7	220.1
85°	53.1	75.9	112.0	130.9	129.0
87.5°	24.7	32.3	45.5	45.5	43.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)