

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: P314170

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-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: P314170
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-UNV-L83050-S-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 2777.0 lumens
Efficiency: N/A
Efficacy: 131.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

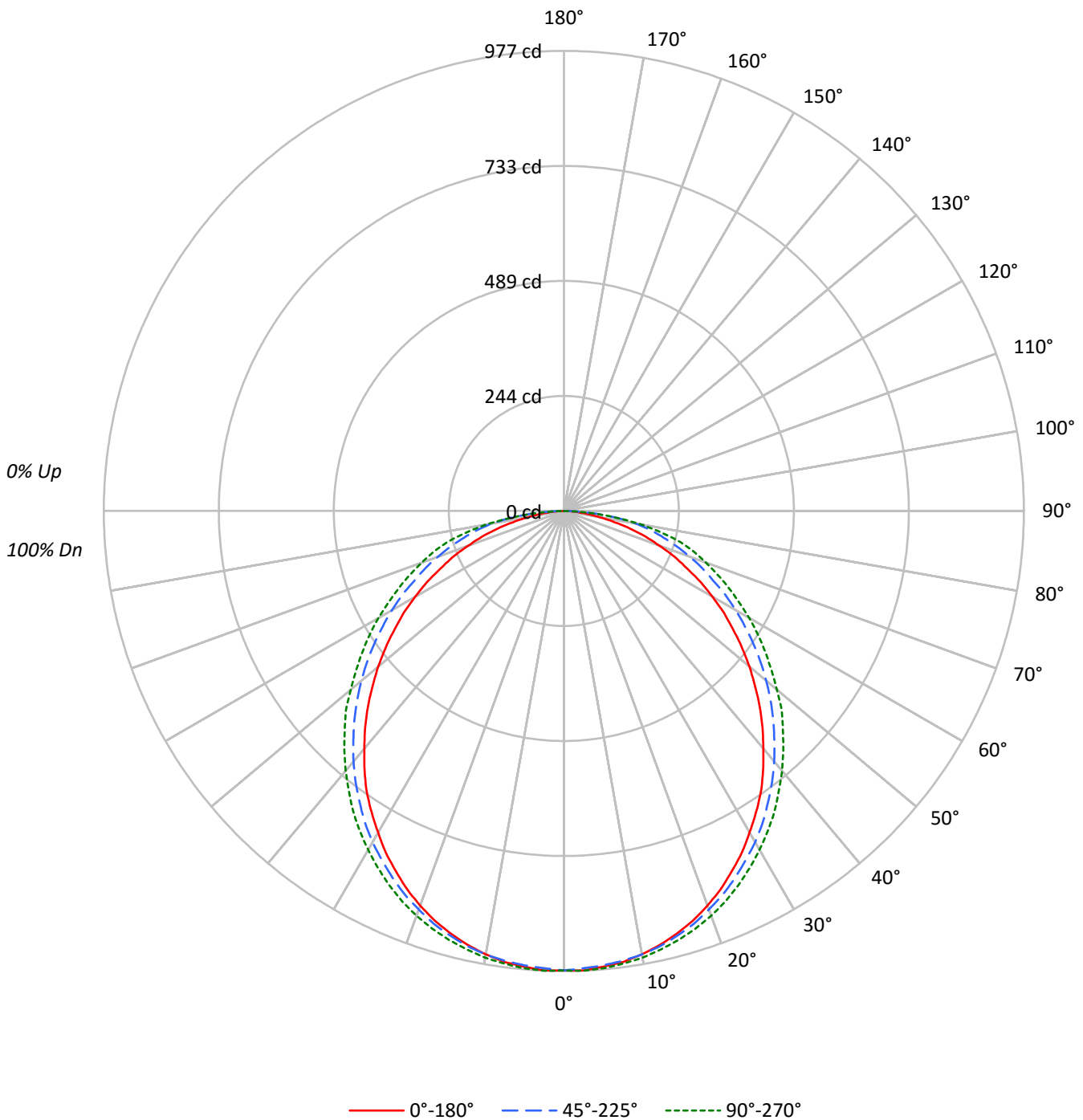
Input Watts (W): 21.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 24FC22-30HE-UNV-L83050-S-CA125-W2A-U-3000K

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	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1313	1313	1313
5°	1312	1308	1316
10°	1306	1306	1316
15°	1294	1300	1313
20°	1277	1290	1310
25°	1253	1277	1302
30°	1225	1262	1291
35°	1198	1242	1281
40°	1157	1221	1266
45°	1119	1197	1252
50°	1077	1174	1237
55°	1028	1152	1225
60°	980	1135	1223
65°	918	1115	1230
70°	850	1121	1263
75°	761	1142	1334
80°	615	1210	1306
85°	463	1062	1034



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.4	3.3
10°-20°	263.9	9.5
20°-30°	396.7	14.3
30°-40°	472.5	17.0
40°-50°	483.6	17.4
50°-60°	435.4	15.7
60°-70°	341.9	12.3
70°-80°	221.9	8.0
80°-90°	68.6	2.5
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°	753.0	27.1
0°-40°	1225.5	44.1
0°-60°	2144.5	77.2
0°-90°	2777.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2777.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	976	976	976	976	976	
5°	971	973	968	974	975	92
15°	929	932	933	941	943	262
25°	844	851	860	874	877	389
35°	730	738	756	774	780	455
45°	588	602	629	653	658	454
55°	438	458	491	517	522	393
65°	288	310	350	379	386	287
75°	146	175	220	250	257	155
85°	30	56	69	67	67	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	975.6	975.6	975.6	975.6	975.6
2.5°	976.5	976.5	972.0	976.5	977.3
5°	971.2	972.9	968.5	973.8	974.7
7.5°	965.9	965.9	963.2	968.5	969.4
10°	956.2	957.1	956.2	962.3	963.2
12.5°	943.8	945.6	946.5	952.6	953.5
15°	928.8	931.5	933.2	941.2	942.9
17.5°	912.1	914.7	919.1	927.9	929.7
20°	891.8	895.3	900.6	912.1	914.7
22.5°	869.7	873.3	882.1	892.7	897.1
25°	844.1	851.2	860.0	874.1	876.8
27.5°	818.6	824.7	836.2	851.2	854.7
30°	788.6	798.3	812.4	827.4	830.9
32.5°	759.5	769.2	785.9	801.8	806.2
35°	729.5	738.3	755.9	774.5	779.8
37.5°	695.1	706.5	726.0	744.5	749.8
40°	658.9	673.0	695.1	714.5	720.7
42.5°	624.5	639.5	661.6	682.7	689.8
45°	588.3	602.5	628.9	652.7	658.0
47.5°	551.3	567.2	595.4	619.2	628.0
50°	514.3	531.0	561.0	585.7	591.0
52.5°	477.2	494.8	526.6	553.1	555.7
55°	438.4	457.8	491.3	516.9	522.2
57.5°	403.1	419.9	456.0	482.5	488.7
60°	364.3	382.8	421.6	446.3	454.3
62.5°	327.3	346.7	387.2	411.9	419.0
65°	288.4	310.5	350.2	379.3	386.4
67.5°	254.9	276.1	318.4	346.7	353.7
70°	216.1	239.9	284.9	314.0	321.1
72.5°	182.6	207.3	252.3	280.5	291.1
75°	146.4	174.7	219.6	249.6	256.7
77.5°	111.1	143.8	189.6	212.6	212.6
80°	79.4	113.8	156.1	166.7	168.5
82.5°	52.0	85.6	115.6	114.7	114.7
85°	30.0	55.6	68.8	67.0	67.0
87.5°	11.5	22.9	24.7	24.7	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)