

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: P310547

Luminaire Tested: **24FCZ2-30-UNV-L82765-CA125-W2A-U-4000K**

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: P310547
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30-UNV-L82765-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 2759.0 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

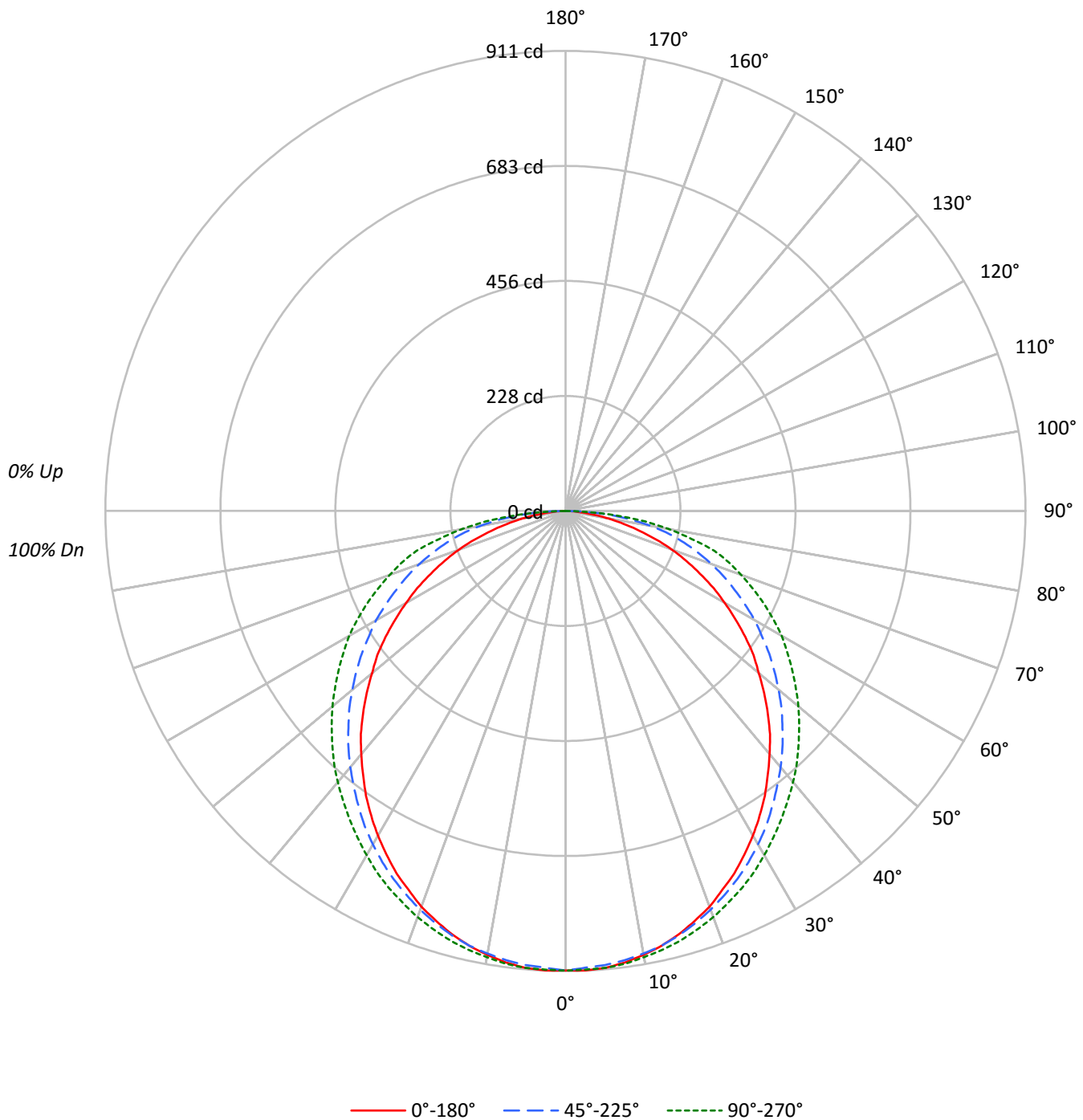
Input Watts (W): 23.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1224	1224	1224
5°	1227	1219	1227
10°	1219	1216	1226
15°	1209	1211	1227
20°	1194	1203	1226
25°	1175	1194	1224
30°	1153	1185	1223
35°	1131	1173	1224
40°	1105	1164	1232
45°	1078	1157	1242
50°	1046	1154	1261
55°	1020	1155	1286
60°	980	1165	1330
65°	935	1177	1379
70°	886	1214	1455
75°	790	1266	1589
80°	674	1340	1624
85°	480	1328	1555



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	3.1
10°-20°	246.2	8.9
20°-30°	371.9	13.5
30°-40°	448.2	16.2
40°-50°	470.6	17.1
50°-60°	440.2	16.0
60°-70°	363.6	13.2
70°-80°	247.7	9.0
80°-90°	84.5	3.1
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°	704.2	25.5
0°-40°	1152.5	41.8
0°-60°	2063.3	74.8
0°-90°	2759.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2759.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	908	907	903	908	908	86
15°	868	869	870	879	881	245
25°	792	796	805	820	825	364
35°	688	696	714	738	745	430
45°	567	578	608	641	653	437
55°	435	452	492	533	548	388
65°	294	319	370	416	433	291
75°	152	187	244	289	306	162
85°	31	61	86	97	101	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	909.9	909.9	909.9	909.9	909.9
2.5°	910.8	909.9	905.3	909.9	909.0
5°	908.1	907.1	902.6	908.1	908.1
7.5°	901.7	901.7	897.1	903.5	904.4
10°	892.5	892.5	889.8	897.1	897.1
12.5°	881.5	881.5	881.5	888.8	889.8
15°	867.8	868.7	869.6	878.8	880.6
17.5°	851.3	853.1	855.9	866.9	868.7
20°	833.9	835.7	840.3	853.1	855.9
22.5°	811.9	816.5	822.9	837.6	840.3
25°	791.8	795.5	804.6	820.2	824.8
27.5°	767.1	772.6	784.5	801.0	807.4
30°	742.4	747.9	762.5	781.7	787.2
32.5°	715.8	724.1	739.6	759.8	766.2
35°	688.4	695.7	714.0	737.8	745.1
37.5°	658.2	668.2	688.4	714.0	723.2
40°	628.9	639.9	662.7	690.2	701.2
42.5°	599.6	610.6	636.2	667.3	678.3
45°	566.6	578.5	607.8	640.8	652.7
47.5°	533.7	548.3	580.4	615.1	628.0
50°	499.8	516.3	551.1	587.7	602.3
52.5°	469.6	485.2	521.8	561.1	574.9
55°	434.8	452.2	492.5	532.8	548.3
57.5°	399.1	418.3	461.4	505.3	520.9
60°	364.3	385.4	433.0	476.9	494.3
62.5°	330.5	351.5	400.9	446.7	464.1
65°	293.8	318.6	369.8	416.5	433.0
67.5°	259.1	285.6	339.6	385.4	401.9
70°	225.2	250.8	308.5	353.3	369.8
72.5°	188.6	217.9	275.5	322.2	339.6
75°	152.0	186.7	243.5	289.3	305.7
77.5°	118.1	153.8	210.5	248.1	256.3
80°	87.0	123.6	173.0	199.6	209.6
82.5°	55.8	92.5	131.8	151.0	159.3
85°	31.1	61.3	86.0	97.0	100.7
87.5°	12.8	26.5	34.8	39.4	39.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)