

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: P310502

Luminaire Tested: **24FCZ2-30HE-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: P310502
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: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 2791.0 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

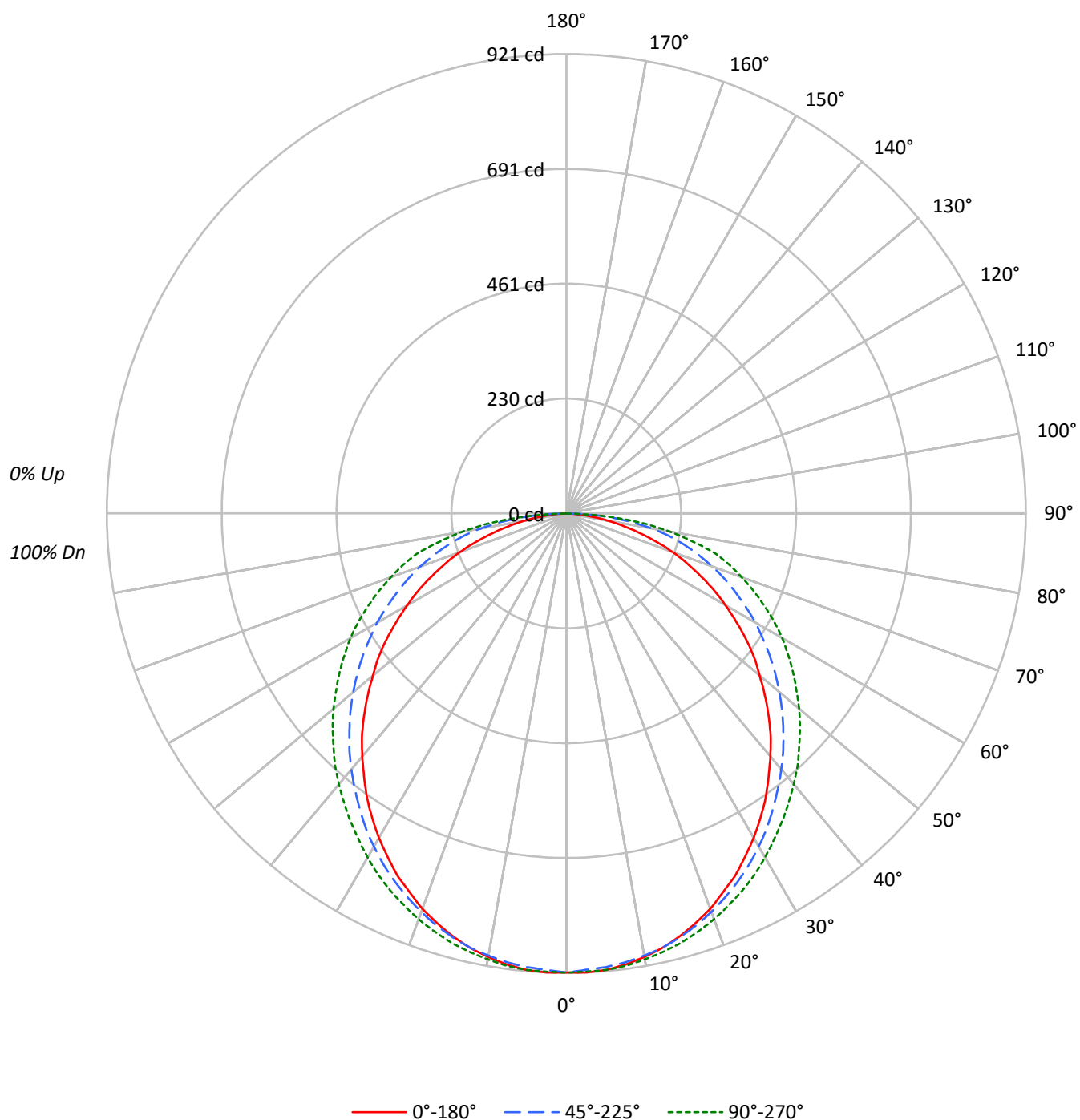
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1238	1238	1238
5°	1241	1233	1241
10°	1234	1230	1240
15°	1223	1225	1241
20°	1208	1217	1240
25°	1189	1208	1239
30°	1167	1198	1237
35°	1144	1186	1238
40°	1117	1177	1246
45°	1091	1170	1256
50°	1058	1167	1275
55°	1032	1169	1301
60°	992	1179	1345
65°	946	1191	1394
70°	896	1228	1472
75°	799	1280	1608
80°	682	1356	1643
85°	486	1343	1573



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	3.1
10°-20°	249.1	8.9
20°-30°	376.2	13.5
30°-40°	453.4	16.2
40°-50°	476.0	17.1
50°-60°	445.3	16.0
60°-70°	367.8	13.2
70°-80°	250.6	9.0
80°-90°	85.5	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°	712.4	25.5
0°-40°	1165.8	41.8
0°-60°	2087.2	74.8
0°-90°	2791.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2791.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	919	918	913	919	919	87
15°	878	879	880	889	891	247
25°	801	805	814	830	834	369
35°	696	704	722	746	754	435
45°	573	585	615	648	660	442
55°	440	457	498	539	555	393
65°	297	322	374	421	438	295
75°	154	189	246	293	309	164
85°	32	62	87	98	102	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	920.4	920.4	920.4	920.4	920.4
2.5°	921.4	920.4	915.8	920.4	919.5
5°	918.6	917.7	913.0	918.6	918.6
7.5°	912.1	912.1	907.5	914.0	914.9
10°	902.9	902.9	900.1	907.5	907.5
12.5°	891.7	891.7	891.7	899.1	900.1
15°	877.9	878.8	879.7	889.0	890.8
17.5°	861.2	863.0	865.8	876.9	878.8
20°	843.6	845.4	850.1	863.0	865.8
22.5°	821.4	826.0	832.5	847.3	850.1
25°	801.0	804.7	814.0	829.7	834.3
27.5°	776.0	781.5	793.6	810.3	816.7
30°	751.0	756.5	771.4	790.8	796.4
32.5°	724.1	732.5	748.2	768.6	775.1
35°	696.4	703.8	722.3	746.4	753.8
37.5°	665.8	676.0	696.4	722.3	731.5
40°	636.2	647.3	670.4	698.2	709.3
42.5°	606.5	617.6	643.6	675.1	686.2
45°	573.2	585.2	614.9	648.2	660.2
47.5°	539.9	554.7	587.1	622.3	635.2
50°	505.6	522.3	557.5	594.5	609.3
52.5°	475.0	490.8	527.8	567.6	581.5
55°	439.9	457.4	498.2	538.9	554.7
57.5°	403.7	423.2	466.7	511.2	526.9
60°	368.5	389.8	438.0	482.4	500.0
62.5°	334.3	355.6	405.6	451.9	469.5
65°	297.2	322.2	374.1	421.3	438.0
67.5°	262.1	288.9	343.5	389.8	406.5
70°	227.8	253.7	312.1	357.4	374.1
72.5°	190.8	220.4	278.7	326.0	343.5
75°	153.7	188.9	246.3	292.6	309.3
77.5°	119.5	155.6	213.0	250.9	259.3
80°	88.0	125.0	175.0	201.9	212.1
82.5°	56.5	93.5	133.3	152.8	161.1
85°	31.5	62.0	87.0	98.2	101.9
87.5°	13.0	26.9	35.2	39.8	39.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)