

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: P310561

Luminaire Tested: **24FCZ2-30-UNV-L82765-CP125-W2A-U-6500K**

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: P310561
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-CP125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 6500K 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

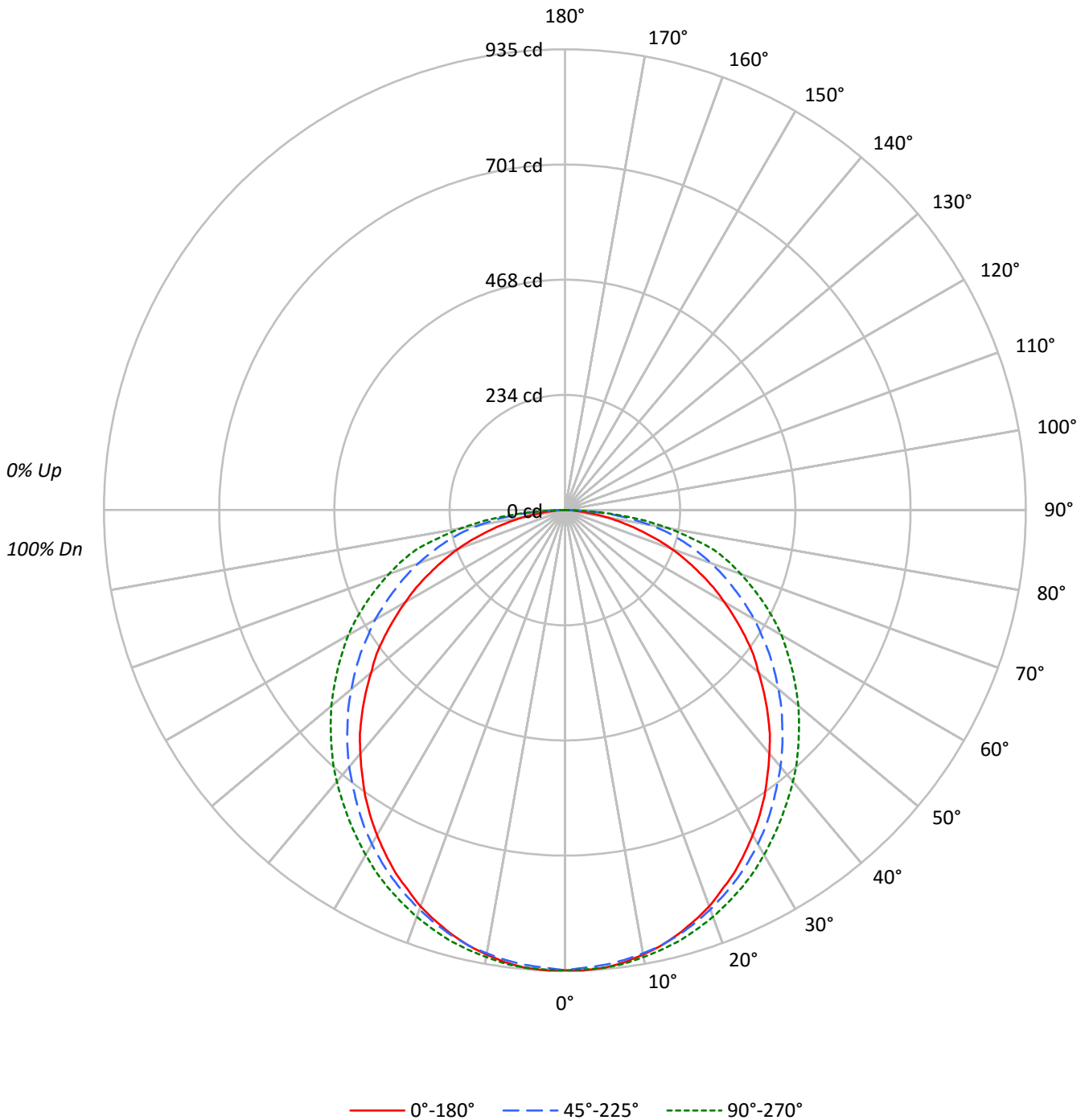
Lumens per Lamp: N/A
Luminaire Lumens: 2832.0 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24.4
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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1257	1257	1257
5°	1259	1251	1259
10°	1252	1248	1258
15°	1241	1243	1259
20°	1226	1235	1258
25°	1207	1226	1257
30°	1184	1216	1255
35°	1161	1204	1256
40°	1134	1195	1264
45°	1107	1187	1275
50°	1074	1184	1294
55°	1047	1186	1320
60°	1006	1196	1365
65°	960	1209	1415
70°	909	1245	1493
75°	811	1299	1631
80°	692	1376	1667
85°	492	1363	1596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	3.1
10°-20°	252.7	8.9
20°-30°	381.7	13.5
30°-40°	460.1	16.2
40°-50°	483.0	17.1
50°-60°	451.9	16.0
60°-70°	373.2	13.2
70°-80°	254.3	9.0
80°-90°	86.7	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°	722.9	25.5
0°-40°	1182.9	41.8
0°-60°	2117.8	74.8
0°-90°	2832.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2832.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	934	934	934	934	934	
5°	932	931	926	932	932	88
15°	891	892	893	902	904	251
25°	813	816	826	842	847	374
35°	707	714	733	757	765	442
45°	582	594	624	658	670	449
55°	446	464	506	547	563	398
65°	302	327	380	428	444	299
75°	156	192	250	297	314	166
85°	32	63	88	100	103	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	934.0	934.0	934.0	934.0	934.0
2.5°	934.9	934.0	929.3	934.0	933.0
5°	932.1	931.2	926.5	932.1	932.1
7.5°	925.5	925.5	920.8	927.4	928.3
10°	916.1	916.1	913.3	920.8	920.8
12.5°	904.8	904.8	904.8	912.4	913.3
15°	890.7	891.7	892.6	902.0	903.9
17.5°	873.8	875.7	878.5	889.8	891.7
20°	856.0	857.9	862.6	875.7	878.5
22.5°	833.4	838.1	844.7	859.7	862.6
25°	812.8	816.5	825.9	841.9	846.6
27.5°	787.4	793.0	805.2	822.2	828.7
30°	762.0	767.7	782.7	802.4	808.1
32.5°	734.8	743.2	759.2	779.9	786.5
35°	706.6	714.1	732.9	757.3	764.8
37.5°	675.6	685.9	706.6	732.9	742.3
40°	645.5	656.8	680.3	708.5	719.7
42.5°	615.4	626.7	653.0	685.0	696.2
45°	581.6	593.8	623.9	657.7	669.9
47.5°	547.8	562.8	595.7	631.4	644.6
50°	513.0	529.9	565.6	603.2	618.3
52.5°	482.0	498.0	535.6	576.0	590.1
55°	446.3	464.2	505.5	546.9	562.8
57.5°	409.7	429.4	473.6	518.7	534.6
60°	374.0	395.6	444.4	489.5	507.4
62.5°	339.2	360.8	411.5	458.5	476.4
65°	301.6	327.0	379.6	427.5	444.4
67.5°	265.9	293.2	348.6	395.6	412.5
70°	231.1	257.5	316.6	362.7	379.6
72.5°	193.6	223.6	282.8	330.7	348.6
75°	156.0	191.7	249.9	296.9	313.8
77.5°	121.2	157.9	216.1	254.6	263.1
80°	89.3	126.8	177.6	204.8	215.2
82.5°	57.3	94.9	135.3	155.0	163.5
85°	31.9	63.0	88.3	99.6	103.4
87.5°	13.2	27.2	35.7	40.4	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)