

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: P310647

Luminaire Tested: **24FCZ2-35-UNV-L82765-CP125-W2A-U-4500K**

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: P310647
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: 24FCZ2-35-UNV-L82765-CP125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 3227.0 lumens
Efficiency: N/A
Efficacy: 113.2 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

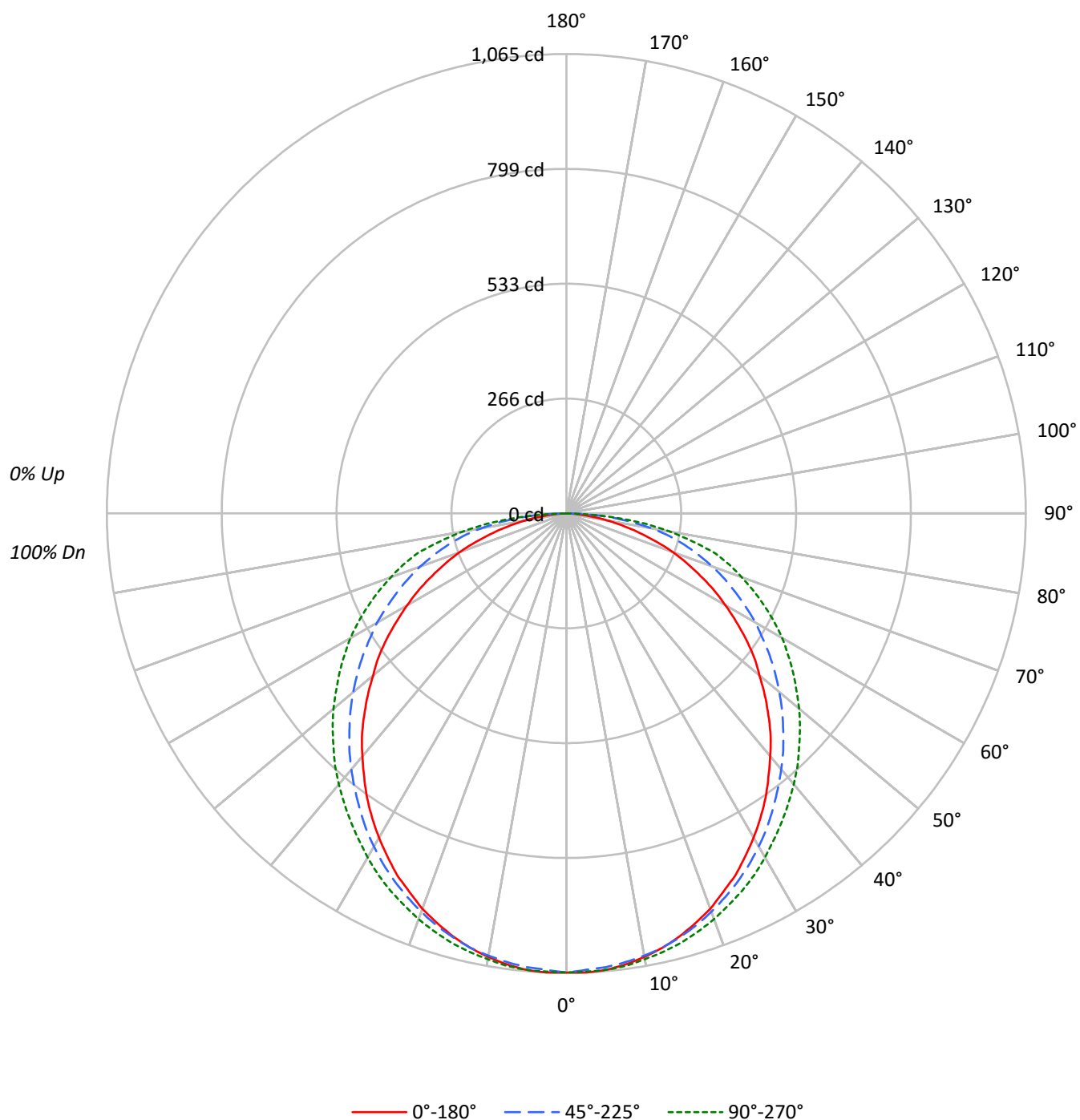
Input Watts (W): 28.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1432	1432	1432
5°	1435	1426	1435
10°	1426	1422	1433
15°	1414	1417	1435
20°	1397	1407	1433
25°	1375	1397	1432
30°	1349	1386	1431
35°	1322	1372	1431
40°	1292	1362	1440
45°	1261	1353	1453
50°	1224	1349	1475
55°	1193	1351	1504
60°	1147	1363	1556
65°	1094	1377	1612
70°	1036	1419	1701
75°	924	1481	1859
80°	788	1568	1900
85°	562	1553	1819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.7	3.1
10°-20°	288.0	8.9
20°-30°	435.0	13.5
30°-40°	524.2	16.2
40°-50°	550.4	17.1
50°-60°	514.9	16.0
60°-70°	425.2	13.2
70°-80°	289.8	9.0
80°-90°	98.8	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°	823.7	25.5
0°-40°	1347.9	41.8
0°-60°	2413.2	74.8
0°-90°	3227.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3227.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1062	1061	1056	1062	1062	101
15°	1015	1016	1017	1028	1030	286
25°	926	930	941	959	965	426
35°	805	814	835	863	872	503
45°	663	677	711	750	763	511
55°	509	529	576	623	641	454
65°	344	373	432	487	506	341
75°	178	218	285	338	358	190
85°	36	72	101	114	118	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1064.2	1064.2	1064.2	1064.2	1064.2
2.5°	1065.3	1064.2	1058.9	1064.2	1063.2
5°	1062.1	1061.0	1055.7	1062.1	1062.1
7.5°	1054.6	1054.6	1049.2	1056.7	1057.8
10°	1043.9	1043.9	1040.7	1049.2	1049.2
12.5°	1031.0	1031.0	1031.0	1039.6	1040.7
15°	1015.0	1016.1	1017.1	1027.8	1030.0
17.5°	995.7	997.9	1001.1	1013.9	1016.1
20°	975.4	977.5	982.9	997.9	1001.1
22.5°	949.7	955.0	962.5	979.7	982.9
25°	926.1	930.4	941.1	959.3	964.7
27.5°	897.2	903.6	917.6	936.8	944.3
30°	868.3	874.7	891.9	914.3	920.8
32.5°	837.3	846.9	865.1	888.6	896.1
35°	805.1	813.7	835.1	863.0	871.5
37.5°	769.8	781.6	805.1	835.1	845.8
40°	735.5	748.4	775.2	807.3	820.1
42.5°	701.3	714.1	744.1	780.5	793.4
45°	662.7	676.7	710.9	749.5	763.4
47.5°	624.2	641.3	678.8	719.5	734.5
50°	584.6	603.9	644.5	687.4	704.5
52.5°	549.2	567.5	610.3	656.3	672.4
55°	508.6	528.9	576.0	623.1	641.3
57.5°	466.8	489.3	539.6	591.0	609.2
60°	426.1	450.7	506.4	557.8	578.2
62.5°	386.5	411.1	468.9	522.5	542.8
65°	343.7	372.6	432.5	487.2	506.4
67.5°	303.0	334.0	397.2	450.7	470.0
70°	263.4	293.4	360.8	413.3	432.5
72.5°	220.6	254.8	322.3	376.9	397.2
75°	177.7	218.4	284.8	338.3	357.6
77.5°	138.1	179.9	246.3	290.1	299.8
80°	101.7	144.5	202.4	233.4	245.2
82.5°	65.3	108.1	154.2	176.7	186.3
85°	36.4	71.7	100.6	113.5	117.8
87.5°	15.0	31.0	40.7	46.0	46.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)