

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: P310649

Luminaire Tested: **24FCZ2-35-UNV-L82765-CP125-W2A-U-5500K**

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: P310649
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-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 5500K 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: 3304.0 lumens
Efficiency: N/A
Efficacy: 114.7 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

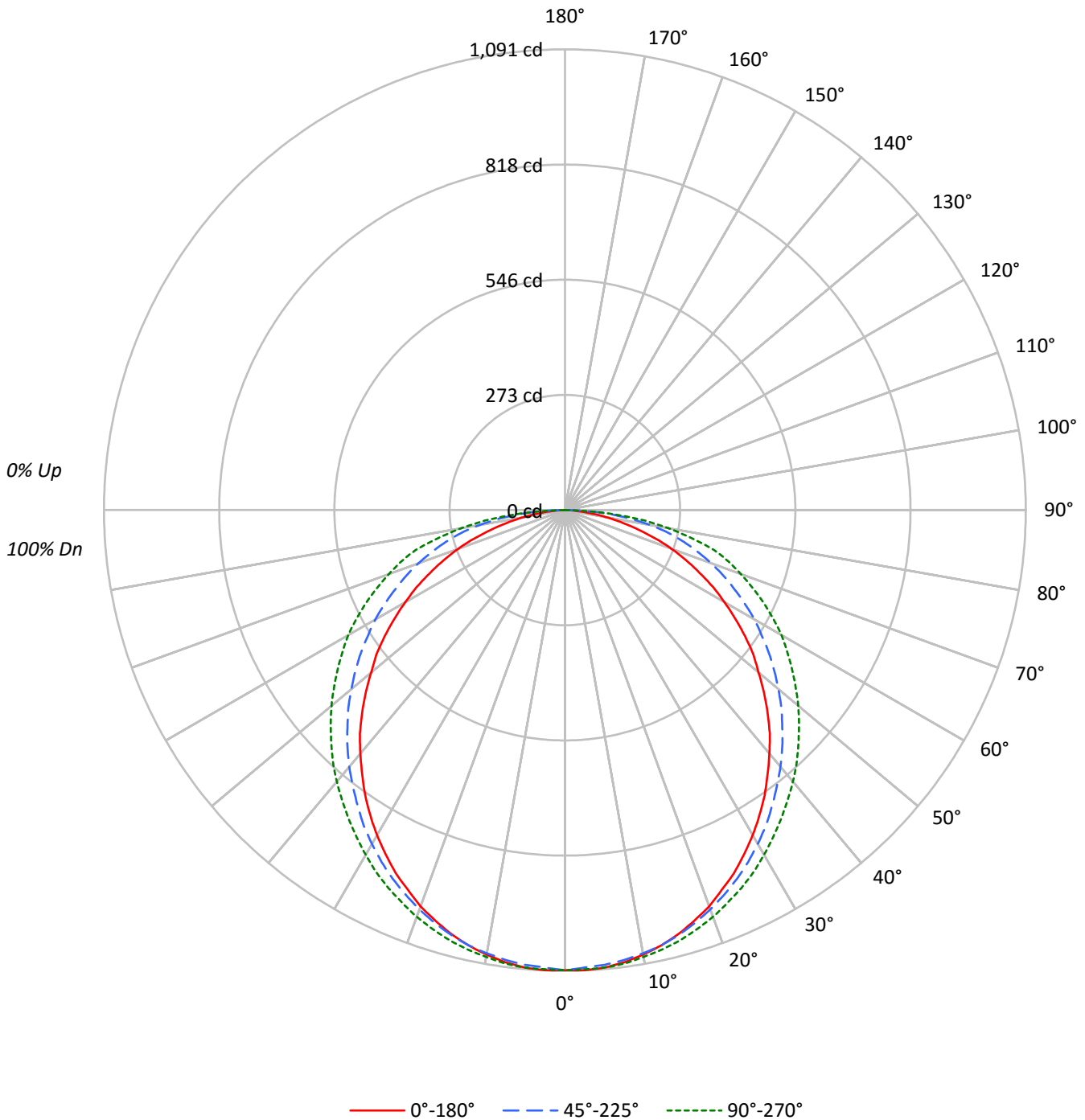
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1466	1466	1466
5°	1469	1460	1469
10°	1460	1456	1468
15°	1448	1451	1469
20°	1430	1441	1468
25°	1408	1431	1466
30°	1381	1419	1465
35°	1354	1404	1466
40°	1323	1394	1475
45°	1291	1385	1487
50°	1253	1381	1510
55°	1221	1384	1540
60°	1174	1395	1593
65°	1120	1410	1651
70°	1061	1453	1742
75°	946	1516	1903
80°	807	1605	1945
85°	576	1590	1862



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	3.1
10°-20°	294.9	8.9
20°-30°	445.4	13.5
30°-40°	536.7	16.2
40°-50°	563.5	17.1
50°-60°	527.2	16.0
60°-70°	435.4	13.2
70°-80°	296.7	9.0
80°-90°	101.2	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°	843.3	25.5
0°-40°	1380.1	41.8
0°-60°	2470.8	74.8
0°-90°	3304.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3304.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1090	1090	1090	1090	1090	
5°	1087	1086	1081	1087	1087	103
15°	1039	1040	1041	1052	1055	293
25°	948	953	964	982	988	436
35°	824	833	855	884	892	515
45°	679	693	728	767	782	523
55°	521	542	590	638	657	465
65°	352	382	443	499	518	349
75°	182	224	292	346	366	194
85°	37	73	103	116	121	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1089.6	1089.6	1089.6	1089.6	1089.6
2.5°	1090.7	1089.6	1084.1	1089.6	1088.5
5°	1087.4	1086.3	1080.9	1087.4	1087.4
7.5°	1079.8	1079.8	1074.3	1082.0	1083.1
10°	1068.8	1068.8	1065.5	1074.3	1074.3
12.5°	1055.6	1055.6	1055.6	1064.4	1065.5
15°	1039.2	1040.3	1041.4	1052.4	1054.6
17.5°	1019.5	1021.7	1025.0	1038.1	1040.3
20°	998.6	1000.8	1006.3	1021.7	1025.0
22.5°	972.3	977.8	985.5	1003.0	1006.3
25°	948.2	952.6	963.6	982.2	987.7
27.5°	918.6	925.2	939.5	959.2	966.9
30°	889.0	895.6	913.1	936.2	942.7
32.5°	857.2	867.1	885.7	909.9	917.5
35°	824.3	833.1	855.0	883.5	892.3
37.5°	788.2	800.2	824.3	855.0	866.0
40°	753.1	766.2	793.7	826.5	839.7
42.5°	718.0	731.2	761.9	799.1	812.3
45°	678.6	692.8	727.9	767.3	781.6
47.5°	639.1	656.6	695.0	736.7	752.0
50°	598.5	618.3	659.9	703.8	721.3
52.5°	562.4	581.0	624.8	672.0	688.4
55°	520.7	541.5	589.8	638.0	656.6
57.5°	477.9	501.0	552.5	605.1	623.7
60°	436.3	461.5	518.5	571.1	592.0
62.5°	395.7	420.9	480.1	534.9	555.8
65°	351.9	381.5	442.9	498.8	518.5
67.5°	310.2	342.0	406.7	461.5	481.2
70°	269.7	300.4	369.4	423.1	442.9
72.5°	225.8	260.9	330.0	385.9	406.7
75°	182.0	223.6	291.6	346.4	366.1
77.5°	141.4	184.2	252.1	297.1	306.9
80°	104.1	148.0	207.2	239.0	251.0
82.5°	66.9	110.7	157.9	180.9	190.7
85°	37.3	73.4	103.0	116.2	120.6
87.5°	15.3	31.8	41.7	47.1	47.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)