

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: P311264

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-S-CA125-W2A-U-2700K**

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: P311264
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35HE-UNV-L82765-S-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 2700K 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: 3091.0 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

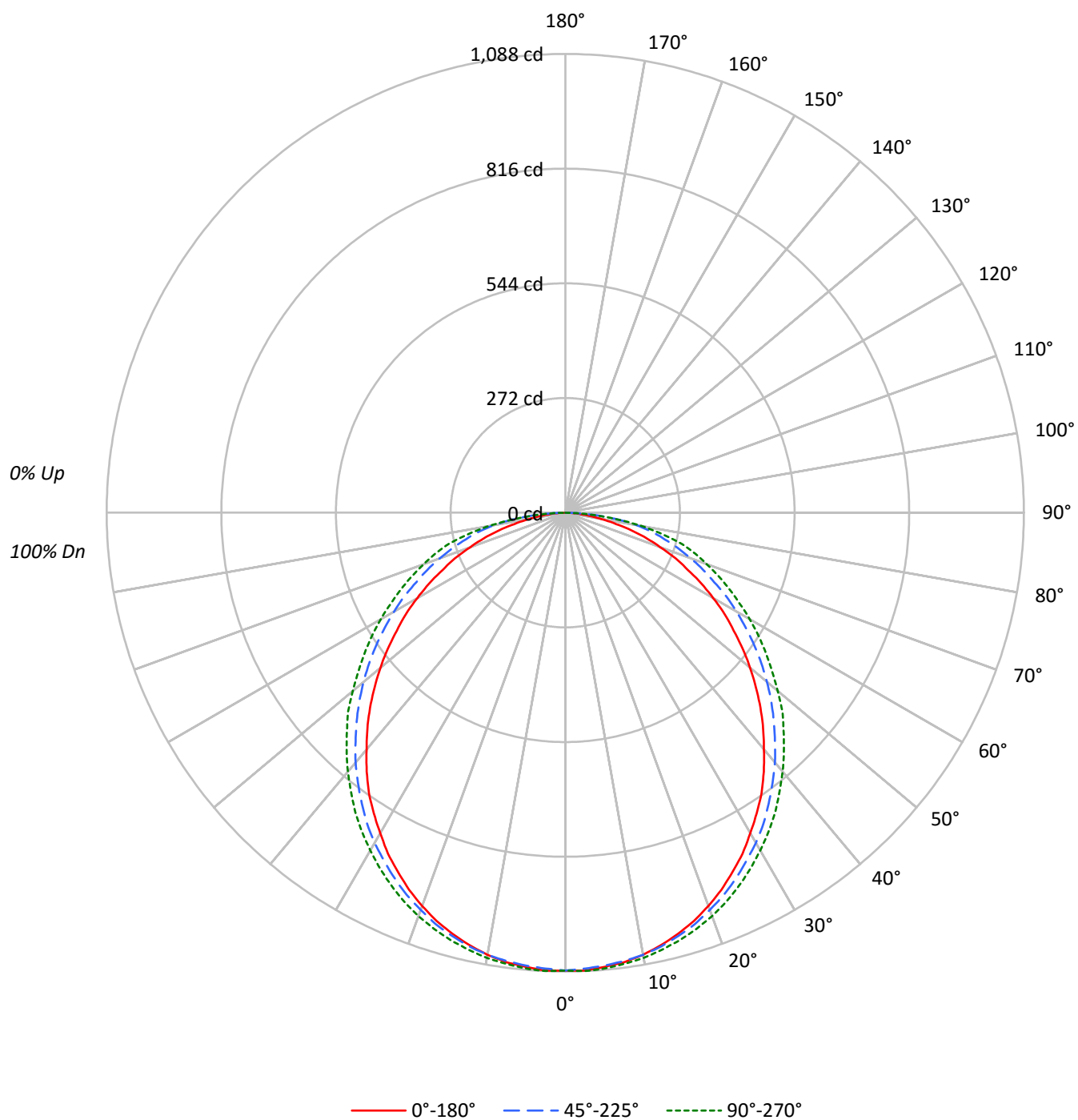
Input Watts (W): 26
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1461	1461	1461
5°	1460	1456	1465
10°	1454	1454	1465
15°	1440	1447	1462
20°	1421	1435	1458
25°	1395	1421	1449
30°	1364	1405	1437
35°	1334	1382	1426
40°	1288	1359	1409
45°	1246	1332	1394
50°	1198	1307	1377
55°	1145	1283	1363
60°	1091	1263	1361
65°	1022	1241	1369
70°	946	1247	1406
75°	847	1271	1485
80°	685	1347	1453
85°	516	1183	1152



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.8	3.3
10°-20°	293.7	9.5
20°-30°	441.6	14.3
30°-40°	526.0	17.0
40°-50°	538.3	17.4
50°-60°	484.6	15.7
60°-70°	380.6	12.3
70°-80°	247.0	8.0
80°-90°	76.4	2.5
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°	838.1	27.1
0°-40°	1364.1	44.1
0°-60°	2387.0	77.2
0°-90°	3091.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3091.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1086	1086	1086	1086	1086	
5°	1081	1083	1078	1084	1085	103
15°	1034	1037	1039	1048	1050	292
25°	940	948	957	973	976	433
35°	812	822	841	862	868	507
45°	655	671	700	726	732	505
55°	488	510	547	575	581	437
65°	321	346	390	422	430	320
75°	163	194	244	278	286	172
85°	33	62	77	75	75	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1085.9	1085.9	1085.9	1085.9	1085.9
2.5°	1086.9	1086.9	1082.0	1086.9	1087.9
5°	1081.0	1082.9	1078.0	1083.9	1084.9
7.5°	1075.1	1075.1	1072.1	1078.0	1079.0
10°	1064.3	1065.3	1064.3	1071.2	1072.1
12.5°	1050.5	1052.5	1053.5	1060.4	1061.3
15°	1033.9	1036.8	1038.8	1047.6	1049.6
17.5°	1015.2	1018.1	1023.1	1032.9	1034.8
20°	992.6	996.5	1002.4	1015.2	1018.1
22.5°	968.1	972.0	981.8	993.6	998.5
25°	939.6	947.5	957.3	973.0	975.9
27.5°	911.1	918.0	930.8	947.5	951.4
30°	877.7	888.5	904.3	920.9	924.9
32.5°	845.3	856.1	874.8	892.5	897.4
35°	812.0	821.8	841.4	862.0	867.9
37.5°	773.7	786.4	808.0	828.7	834.5
40°	733.4	749.1	773.7	795.3	802.1
42.5°	695.1	711.8	736.4	759.9	767.8
45°	654.9	670.6	700.0	726.5	732.4
47.5°	613.6	631.3	662.7	689.2	699.1
50°	572.4	591.1	624.4	651.9	657.8
52.5°	531.2	550.8	586.1	615.6	618.5
55°	488.0	509.6	546.9	575.3	581.2
57.5°	448.7	467.3	507.6	537.1	543.9
60°	405.5	426.1	469.3	496.8	505.6
62.5°	364.3	385.9	431.0	458.5	466.4
65°	321.1	345.6	389.8	422.2	430.0
67.5°	283.7	307.3	354.4	385.9	393.7
70°	240.5	267.1	317.1	349.5	357.4
72.5°	203.2	230.7	280.8	312.2	324.0
75°	163.0	194.4	244.5	277.9	285.7
77.5°	123.7	160.0	211.1	236.6	236.6
80°	88.4	126.7	173.8	185.6	187.5
82.5°	57.9	95.2	128.6	127.6	127.6
85°	33.4	61.9	76.6	74.6	74.6
87.5°	12.8	25.5	27.5	27.5	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)