

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: P310606

Luminaire Tested: **24FCZ2-35HE-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: P310606
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: 24FCZ2-35HE-UNV-L82765-CP125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 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: 3286.0 lumens
Efficiency: N/A
Efficacy: 120.8 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

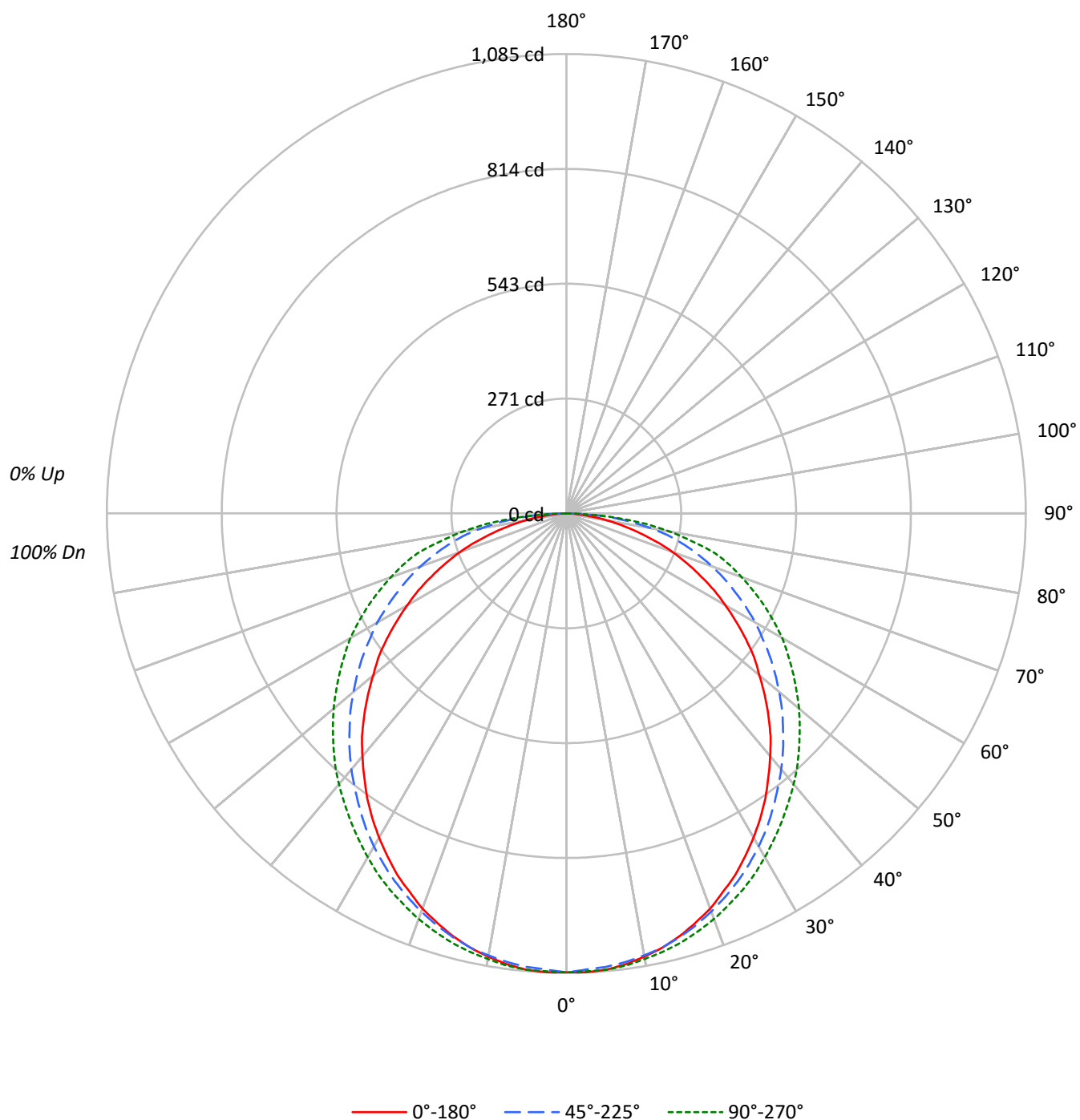
Input Watts (W): 27.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1458	1458	1458
5°	1461	1452	1461
10°	1452	1448	1460
15°	1440	1443	1461
20°	1422	1433	1460
25°	1400	1423	1458
30°	1374	1411	1457
35°	1347	1397	1458
40°	1316	1386	1467
45°	1284	1377	1479
50°	1246	1374	1502
55°	1215	1376	1532
60°	1168	1388	1584
65°	1114	1402	1642
70°	1055	1445	1733
75°	941	1508	1893
80°	803	1597	1935
85°	573	1582	1851



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.6	3.1
10°-20°	293.3	8.9
20°-30°	442.9	13.5
30°-40°	533.8	16.2
40°-50°	560.4	17.1
50°-60°	524.3	16.0
60°-70°	433.0	13.2
70°-80°	295.1	9.0
80°-90°	100.6	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°	838.7	25.5
0°-40°	1372.6	41.8
0°-60°	2457.3	74.8
0°-90°	3286.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3286.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1084	1084	1084	1084	1084	
5°	1082	1080	1075	1082	1082	103
15°	1034	1035	1036	1047	1049	291
25°	943	947	958	977	982	434
35°	820	829	850	879	888	512
45°	675	689	724	763	777	520
55°	518	539	586	634	653	462
65°	350	379	440	496	516	347
75°	181	222	290	344	364	193
85°	37	73	102	116	120	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1083.7	1083.7	1083.7	1083.7	1083.7
2.5°	1084.8	1083.7	1078.2	1083.7	1082.6
5°	1081.5	1080.4	1075.0	1081.5	1081.5
7.5°	1073.9	1073.9	1068.4	1076.1	1077.2
10°	1063.0	1063.0	1059.7	1068.4	1068.4
12.5°	1049.9	1049.9	1049.9	1058.6	1059.7
15°	1033.5	1034.6	1035.7	1046.6	1048.8
17.5°	1013.9	1016.1	1019.4	1032.5	1034.6
20°	993.2	995.4	1000.8	1016.1	1019.4
22.5°	967.0	972.5	980.1	997.6	1000.8
25°	943.1	947.4	958.3	976.9	982.3
27.5°	913.6	920.2	934.3	954.0	961.6
30°	884.2	890.7	908.2	931.1	937.6
32.5°	852.6	862.4	880.9	904.9	912.5
35°	819.9	828.6	850.4	878.7	887.5
37.5°	783.9	795.9	819.9	850.4	861.3
40°	749.0	762.1	789.3	822.0	835.1
42.5°	714.1	727.2	757.7	794.8	807.9
45°	674.9	689.0	723.9	763.2	777.3
47.5°	635.6	653.1	691.2	732.6	747.9
50°	595.3	614.9	656.3	699.9	717.4
52.5°	559.3	577.8	621.4	668.3	684.7
55°	517.9	538.6	586.5	634.5	653.1
57.5°	475.3	498.2	549.5	601.8	620.3
60°	433.9	459.0	515.7	568.0	588.7
62.5°	393.6	418.7	477.5	532.0	552.7
65°	350.0	379.4	440.5	496.1	515.7
67.5°	308.5	340.2	404.5	459.0	478.6
70°	268.2	298.7	367.4	420.8	440.5
72.5°	224.6	259.5	328.2	383.8	404.5
75°	181.0	222.4	290.0	344.5	364.1
77.5°	140.6	183.2	250.8	295.5	305.3
80°	103.6	147.2	206.1	237.7	249.7
82.5°	66.5	110.1	157.0	179.9	189.7
85°	37.1	73.0	102.5	115.6	119.9
87.5°	15.3	31.6	41.4	46.9	46.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)