

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: P310603

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-CP125-W2A-U-5000K**

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: P310603
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-5000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5000K 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: 3236.0 lumens
Efficiency: N/A
Efficacy: 121.7 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

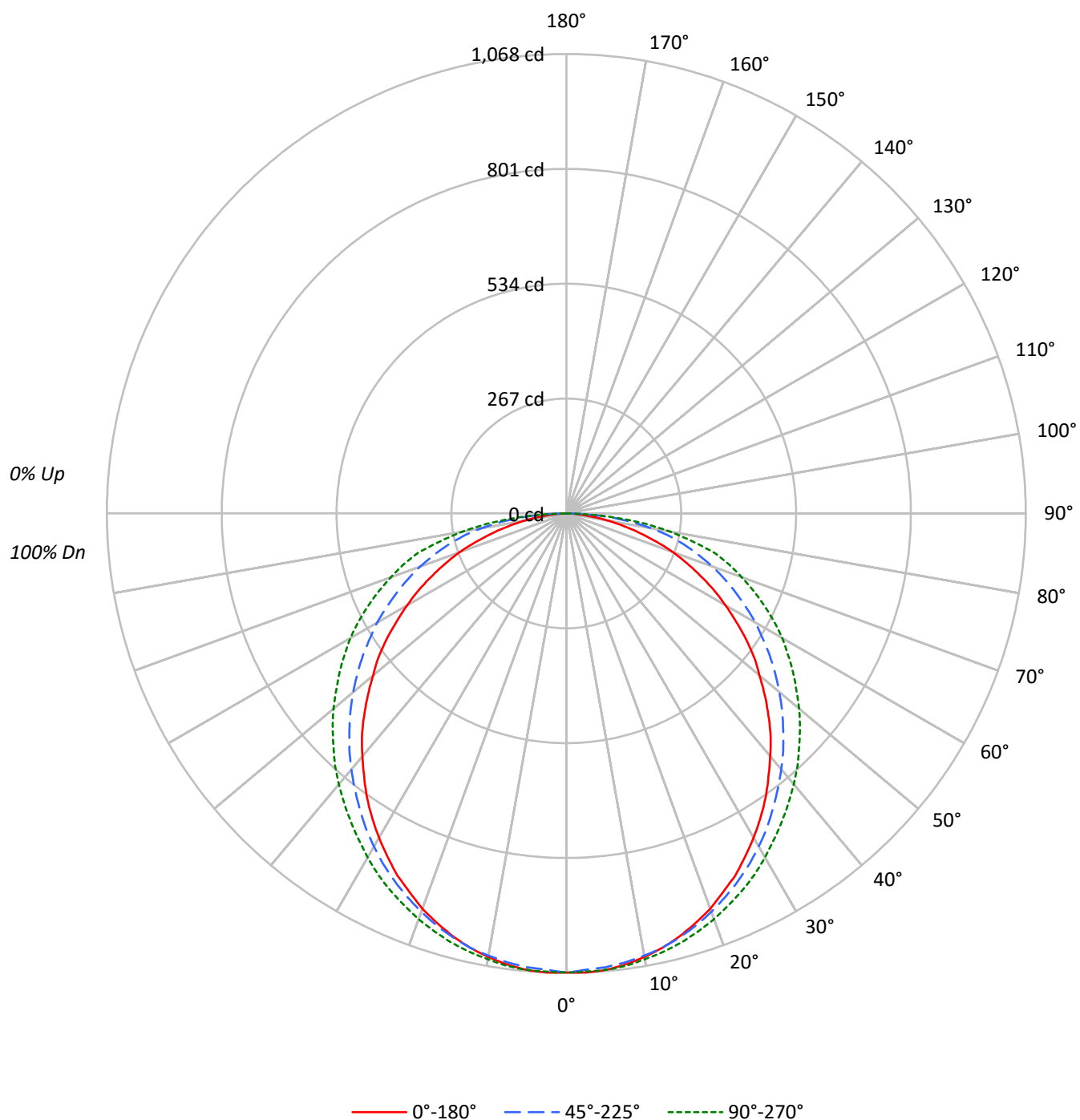
Input Watts (W): 26.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1436	1436	1436
5°	1439	1430	1439
10°	1430	1426	1438
15°	1418	1421	1439
20°	1400	1411	1437
25°	1379	1401	1436
30°	1353	1389	1434
35°	1326	1375	1435
40°	1296	1365	1444
45°	1265	1357	1457
50°	1227	1353	1479
55°	1196	1355	1509
60°	1150	1366	1560
65°	1097	1381	1617
70°	1039	1423	1707
75°	926	1485	1864
80°	790	1572	1905
85°	563	1558	1823



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.0	3.1
10°-20°	288.8	8.9
20°-30°	436.2	13.5
30°-40°	525.7	16.2
40°-50°	551.9	17.1
50°-60°	516.3	16.0
60°-70°	426.4	13.2
70°-80°	290.6	9.0
80°-90°	99.1	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°	826.0	25.5
0°-40°	1351.7	41.8
0°-60°	2419.9	74.8
0°-90°	3236.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3236.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1067	1067	1067	1067	1067	
5°	1065	1064	1059	1065	1065	101
15°	1018	1019	1020	1031	1033	287
25°	929	933	944	962	967	427
35°	807	816	837	865	874	505
45°	665	678	713	752	766	513
55°	510	530	578	625	643	455
65°	345	374	434	488	508	342
75°	178	219	286	339	359	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°	1067.2	1067.2	1067.2	1067.2	1067.2
2.5°	1068.3	1067.2	1061.8	1067.2	1066.1
5°	1065.1	1064.0	1058.6	1065.1	1065.1
7.5°	1057.5	1057.5	1052.2	1059.7	1060.8
10°	1046.8	1046.8	1043.6	1052.2	1052.2
12.5°	1033.9	1033.9	1033.9	1042.5	1043.6
15°	1017.8	1018.9	1020.0	1030.7	1032.8
17.5°	998.5	1000.6	1003.9	1016.7	1018.9
20°	978.1	980.2	985.6	1000.6	1003.9
22.5°	952.3	957.7	965.2	982.4	985.6
25°	928.7	933.0	943.7	962.0	967.4
27.5°	899.7	906.2	920.1	939.4	947.0
30°	870.7	877.2	894.3	916.9	923.3
32.5°	839.6	849.3	867.5	891.1	898.6
35°	807.4	816.0	837.4	865.4	873.9
37.5°	772.0	783.8	807.4	837.4	848.2
40°	737.6	750.5	777.3	809.5	822.4
42.5°	703.2	716.1	746.2	782.7	795.6
45°	664.6	678.5	712.9	751.6	765.5
47.5°	625.9	643.1	680.7	721.5	736.5
50°	586.2	605.5	646.3	689.3	706.5
52.5°	550.8	569.0	612.0	658.1	674.3
55°	510.0	530.4	577.6	624.9	643.1
57.5°	468.1	490.7	541.1	592.7	610.9
60°	427.3	452.0	507.8	559.4	579.8
62.5°	387.6	412.3	470.3	523.9	544.3
65°	344.6	373.6	433.8	488.5	507.8
67.5°	303.8	335.0	398.3	452.0	471.3
70°	264.1	294.2	361.8	414.4	433.8
72.5°	221.2	255.5	323.2	377.9	398.3
75°	178.2	219.0	285.6	339.3	358.6
77.5°	138.5	180.4	246.9	291.0	300.6
80°	102.0	144.9	202.9	234.1	245.9
82.5°	65.5	108.4	154.6	177.2	186.8
85°	36.5	71.9	100.9	113.8	118.1
87.5°	15.0	31.1	40.8	46.2	46.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)