

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: P311267

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-S-CA125-W2A-U-4000K**

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: P311267
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-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 4000K 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: 3363.0 lumens
Efficiency: N/A
Efficacy: 127.9 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

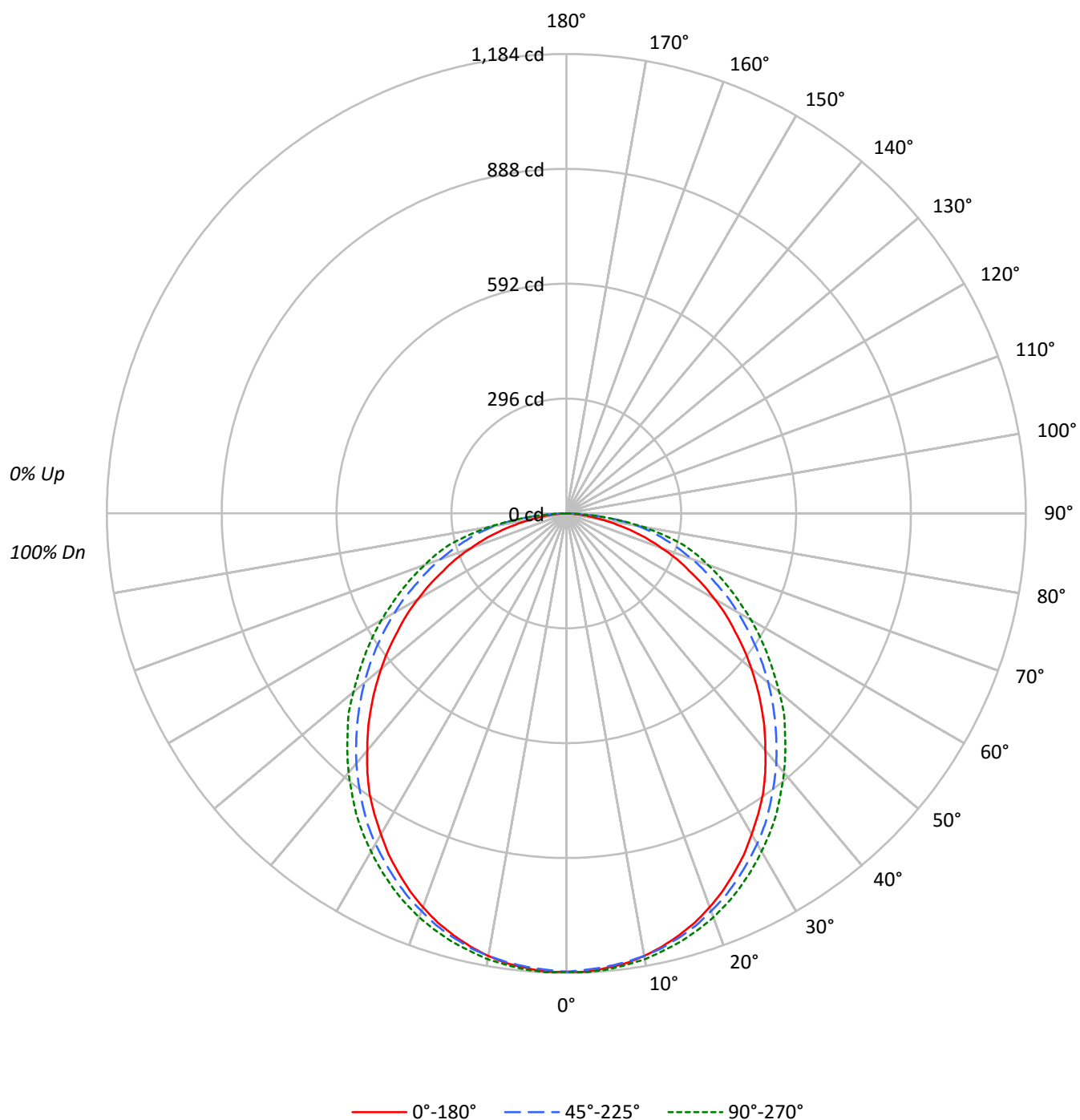
Input Watts (W): 26.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1590	1590	1590
5°	1588	1584	1594
10°	1582	1582	1594
15°	1567	1574	1591
20°	1546	1562	1586
25°	1518	1546	1576
30°	1484	1528	1563
35°	1451	1504	1551
40°	1402	1479	1533
45°	1356	1449	1516
50°	1304	1422	1498
55°	1245	1396	1483
60°	1187	1374	1480
65°	1112	1350	1490
70°	1030	1357	1530
75°	922	1383	1616
80°	745	1465	1581
85°	560	1286	1254



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	3.3
10°-20°	319.6	9.5
20°-30°	480.4	14.3
30°-40°	572.3	17.0
40°-50°	585.7	17.4
50°-60°	527.3	15.7
60°-70°	414.1	12.3
70°-80°	268.7	8.0
80°-90°	83.1	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°	911.8	27.1
0°-40°	1484.1	44.1
0°-60°	2597.1	77.2
0°-90°	3363.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3363.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1181	1181	1181	1181	1181	
5°	1176	1178	1173	1179	1180	112
15°	1125	1128	1130	1140	1142	317
25°	1022	1031	1042	1059	1062	471
35°	883	894	916	938	944	551
45°	712	730	762	790	797	549
55°	531	554	595	626	632	476
65°	349	376	424	459	468	348
75°	177	212	266	302	311	188
85°	36	67	83	81	81	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1181.4	1181.4	1181.4	1181.4	1181.4
2.5°	1182.5	1182.5	1177.2	1182.5	1183.6
5°	1176.1	1178.2	1172.9	1179.3	1180.4
7.5°	1169.7	1169.7	1166.5	1172.9	1174.0
10°	1157.9	1159.0	1157.9	1165.4	1166.5
12.5°	1143.0	1145.1	1146.2	1153.7	1154.7
15°	1124.8	1128.0	1130.2	1139.8	1141.9
17.5°	1104.5	1107.7	1113.1	1123.8	1125.9
20°	1080.0	1084.2	1090.6	1104.5	1107.7
22.5°	1053.3	1057.5	1068.2	1081.0	1086.4
25°	1022.3	1030.8	1041.5	1058.6	1061.8
27.5°	991.3	998.8	1012.7	1030.8	1035.1
30°	955.0	966.7	983.8	1002.0	1006.3
32.5°	919.7	931.5	951.8	971.0	976.3
35°	883.4	894.1	915.5	937.9	944.3
37.5°	841.8	855.6	879.1	901.6	908.0
40°	798.0	815.0	841.8	865.3	872.7
42.5°	756.3	774.5	801.2	826.8	835.3
45°	712.5	729.6	761.6	790.5	796.9
47.5°	667.6	686.9	721.0	749.9	760.6
50°	622.8	643.1	679.4	709.3	715.7
52.5°	577.9	599.3	637.7	669.8	673.0
55°	530.9	554.4	595.0	626.0	632.4
57.5°	488.2	508.5	552.3	584.3	591.8
60°	441.2	463.6	510.6	540.5	550.1
62.5°	396.3	419.8	468.9	498.9	507.4
65°	349.3	376.0	424.1	459.3	467.9
67.5°	308.7	334.4	385.6	419.8	428.4
70°	261.7	290.6	345.0	380.3	388.8
72.5°	221.1	251.0	305.5	339.7	352.5
75°	177.3	211.5	266.0	302.3	310.9
77.5°	134.6	174.1	229.7	257.4	257.4
80°	96.1	137.8	189.1	201.9	204.0
82.5°	63.0	103.6	139.9	138.9	138.9
85°	36.3	67.3	83.3	81.2	81.2
87.5°	13.9	27.8	29.9	29.9	28.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)