

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: P310621

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-CP250-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: P310621
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-CP250-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" 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: 3074.0 lumens
Efficiency: N/A
Efficacy: 115.6 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

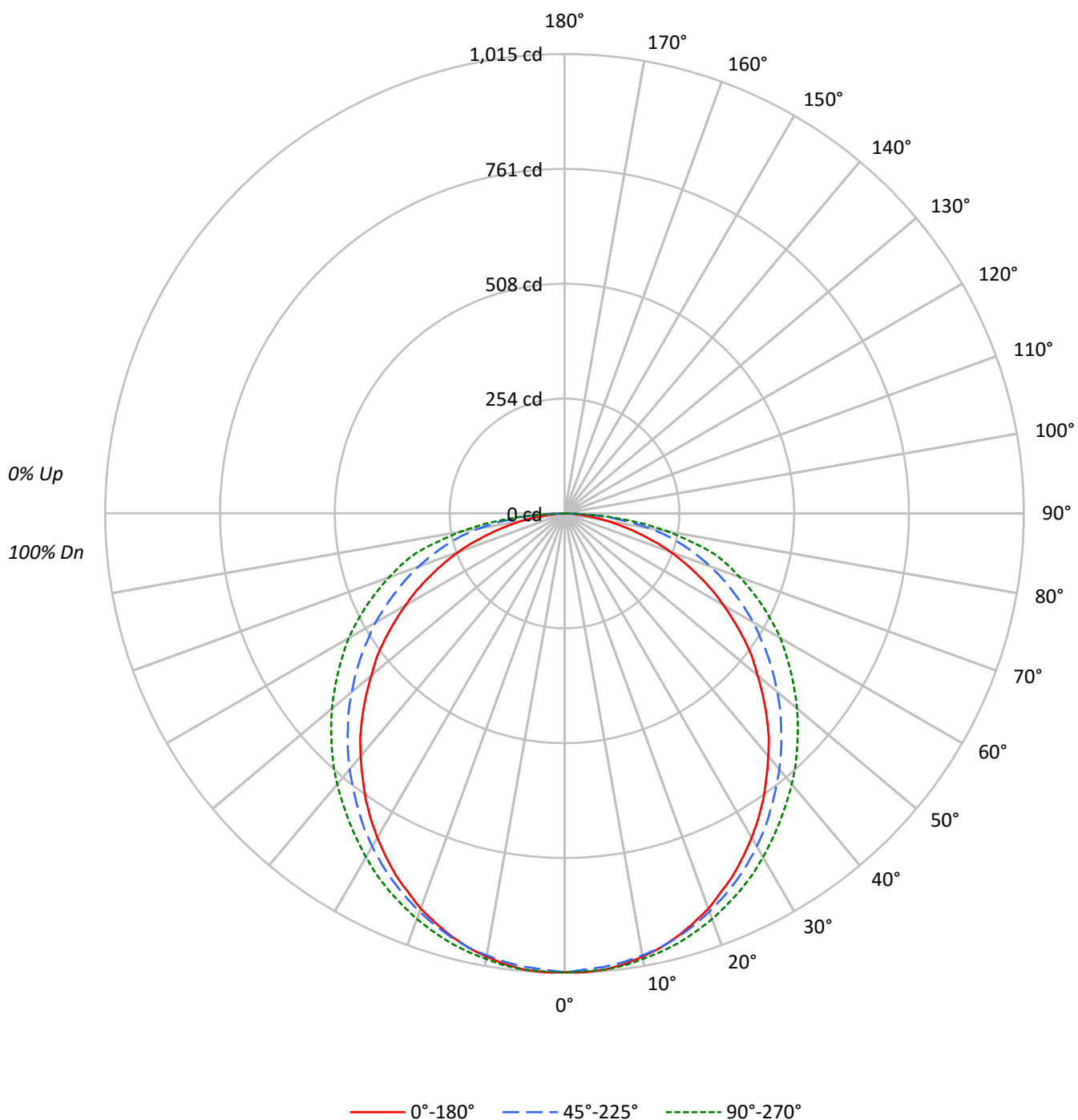
Input Watts (W): 26.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1364	1364	1364
5°	1366	1358	1366
10°	1359	1354	1366
15°	1347	1350	1367
20°	1330	1341	1365
25°	1310	1331	1364
30°	1285	1320	1363
35°	1260	1307	1364
40°	1231	1297	1372
45°	1201	1289	1384
50°	1166	1285	1405
55°	1137	1287	1433
60°	1092	1298	1482
65°	1042	1312	1536
70°	987	1352	1621
75°	880	1410	1771
80°	751	1494	1810
85°	536	1480	1732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	3.1
10°-20°	274.3	8.9
20°-30°	414.4	13.5
30°-40°	499.4	16.2
40°-50°	524.3	17.1
50°-60°	490.5	16.0
60°-70°	405.1	13.2
70°-80°	276.0	9.0
80°-90°	94.1	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°	784.6	25.5
0°-40°	1284.0	41.8
0°-60°	2298.8	74.8
0°-90°	3074.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3074.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1014	1014	1014	1014	1014	
5°	1012	1011	1006	1012	1012	96
15°	967	968	969	979	981	273
25°	882	886	896	914	919	406
35°	767	775	796	822	830	479
45°	631	645	677	714	727	487
55°	484	504	549	594	611	432
65°	327	355	412	464	482	325
75°	169	208	271	322	341	181
85°	35	68	96	108	112	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1013.8	1013.8	1013.8	1013.8	1013.8
2.5°	1014.8	1013.8	1008.7	1013.8	1012.8
5°	1011.7	1010.7	1005.6	1011.7	1011.7
7.5°	1004.6	1004.6	999.5	1006.6	1007.7
10°	994.4	994.4	991.3	999.5	999.5
12.5°	982.2	982.2	982.2	990.3	991.3
15°	966.9	967.9	968.9	979.1	981.1
17.5°	948.5	950.5	953.6	965.8	967.9
20°	929.1	931.2	936.3	950.5	953.6
22.5°	904.6	909.7	916.9	933.2	936.3
25°	882.2	886.3	896.5	913.8	918.9
27.5°	854.7	860.8	874.1	892.4	899.5
30°	827.1	833.3	849.6	871.0	877.1
32.5°	797.6	806.7	824.1	846.5	853.7
35°	767.0	775.1	795.5	822.0	830.2
37.5°	733.3	744.5	767.0	795.5	805.7
40°	700.7	712.9	738.4	769.0	781.2
42.5°	668.0	680.3	708.8	743.5	755.7
45°	631.3	644.6	677.2	713.9	727.2
47.5°	594.6	610.9	646.6	685.4	699.6
50°	556.9	575.2	614.0	654.8	671.1
52.5°	523.2	540.5	581.3	625.2	640.5
55°	484.5	503.8	548.7	593.6	610.9
57.5°	444.7	466.1	514.0	563.0	580.3
60°	405.9	429.4	482.4	531.4	550.7
62.5°	368.2	391.6	446.7	497.7	517.1
65°	327.4	354.9	412.0	464.1	482.4
67.5°	288.6	318.2	378.4	429.4	447.7
70°	250.9	279.5	343.7	393.7	412.0
72.5°	210.1	242.7	307.0	359.0	378.4
75°	169.3	208.1	271.3	322.3	340.6
77.5°	131.6	171.3	234.6	276.4	285.6
80°	96.9	137.7	192.8	222.3	233.6
82.5°	62.2	103.0	146.9	168.3	177.5
85°	34.7	68.3	95.9	108.1	112.2
87.5°	14.3	29.6	38.8	43.9	43.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)