

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: P310619

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-CP250-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: P310619
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-4000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB 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: 2981.0 lumens
Efficiency: N/A
Efficacy: 113.3 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

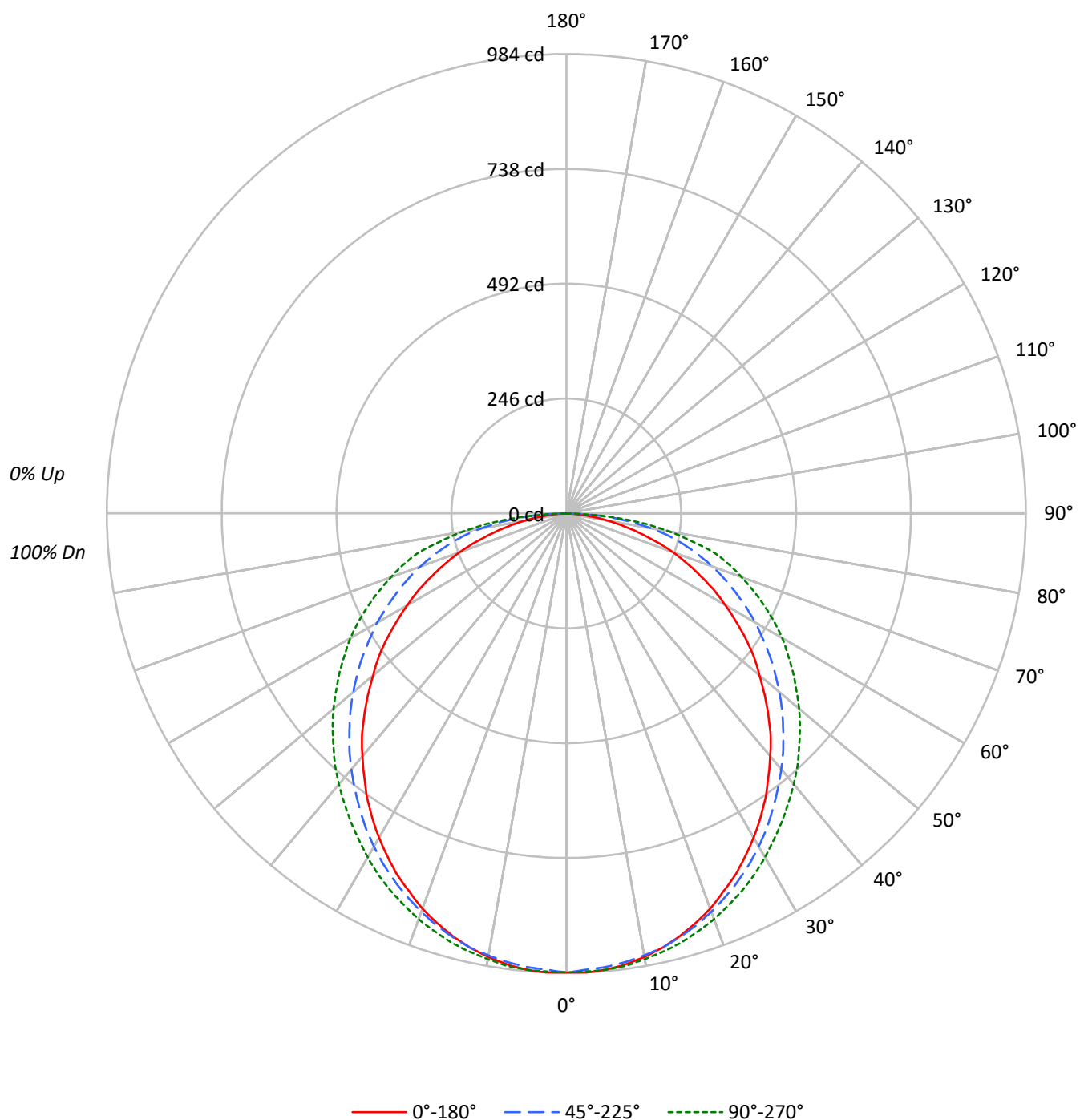
Input Watts (W): 26.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1323	1323	1323
5°	1325	1317	1325
10°	1317	1313	1324
15°	1306	1309	1325
20°	1290	1300	1324
25°	1270	1291	1323
30°	1246	1280	1322
35°	1222	1267	1322
40°	1193	1258	1331
45°	1165	1250	1342
50°	1130	1246	1362
55°	1102	1248	1390
60°	1059	1259	1437
65°	1011	1272	1489
70°	957	1311	1572
75°	854	1368	1717
80°	728	1448	1755
85°	519	1436	1680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.0	3.1
10°-20°	266.0	8.9
20°-30°	401.8	13.5
30°-40°	484.3	16.2
40°-50°	508.4	17.1
50°-60°	475.7	16.0
60°-70°	392.8	13.2
70°-80°	267.7	9.0
80°-90°	91.3	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°	760.9	25.5
0°-40°	1245.2	41.8
0°-60°	2229.3	74.8
0°-90°	2981.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2981.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	983	983	983	983	983	
5°	981	980	975	981	981	93
15°	938	939	940	950	952	264
25°	856	860	869	886	891	394
35°	744	752	772	797	805	465
45°	612	625	657	692	705	472
55°	470	489	532	576	592	419
65°	318	344	400	450	468	315
75°	164	202	263	312	330	175
85°	34	66	93	105	109	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	983.1	983.1	983.1	983.1	983.1
2.5°	984.1	983.1	978.2	983.1	982.1
5°	981.1	980.1	975.2	981.1	981.1
7.5°	974.2	974.2	969.3	976.2	977.2
10°	964.3	964.3	961.3	969.3	969.3
12.5°	952.4	952.4	952.4	960.4	961.3
15°	937.6	938.6	939.6	949.5	951.5
17.5°	919.8	921.8	924.8	936.6	938.6
20°	901.0	903.0	907.9	921.8	924.8
22.5°	877.3	882.2	889.1	905.0	907.9
25°	855.5	859.5	869.4	886.2	891.1
27.5°	828.8	834.8	847.6	865.4	872.3
30°	802.1	808.0	823.9	844.6	850.6
32.5°	773.4	782.3	799.1	820.9	827.8
35°	743.8	751.7	771.5	797.2	805.1
37.5°	711.1	722.0	743.8	771.5	781.3
40°	679.5	691.3	716.1	745.7	757.6
42.5°	647.8	659.7	687.4	721.0	732.9
45°	612.2	625.1	656.7	692.3	705.2
47.5°	576.6	592.4	627.1	664.6	678.5
50°	540.0	557.8	595.4	635.0	650.8
52.5°	507.4	524.2	563.8	606.3	621.1
55°	469.8	488.6	532.1	575.6	592.4
57.5°	431.2	452.0	498.5	546.0	562.8
60°	393.6	416.4	467.8	515.3	534.1
62.5°	357.0	379.8	433.2	482.7	501.4
65°	317.5	344.2	399.6	450.0	467.8
67.5°	279.9	308.6	366.9	416.4	434.2
70°	243.3	271.0	333.3	381.8	399.6
72.5°	203.7	235.4	297.7	348.1	366.9
75°	164.2	201.8	263.1	312.5	330.3
77.5°	127.6	166.2	227.5	268.0	276.9
80°	94.0	133.5	186.9	215.6	226.5
82.5°	60.3	99.9	142.4	163.2	172.1
85°	33.6	66.3	93.0	104.8	108.8
87.5°	13.8	28.7	37.6	42.5	42.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)