

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: P310599

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-CP125-W2A-U-3000K**

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: P310599
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-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 3000K 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: 2968.0 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

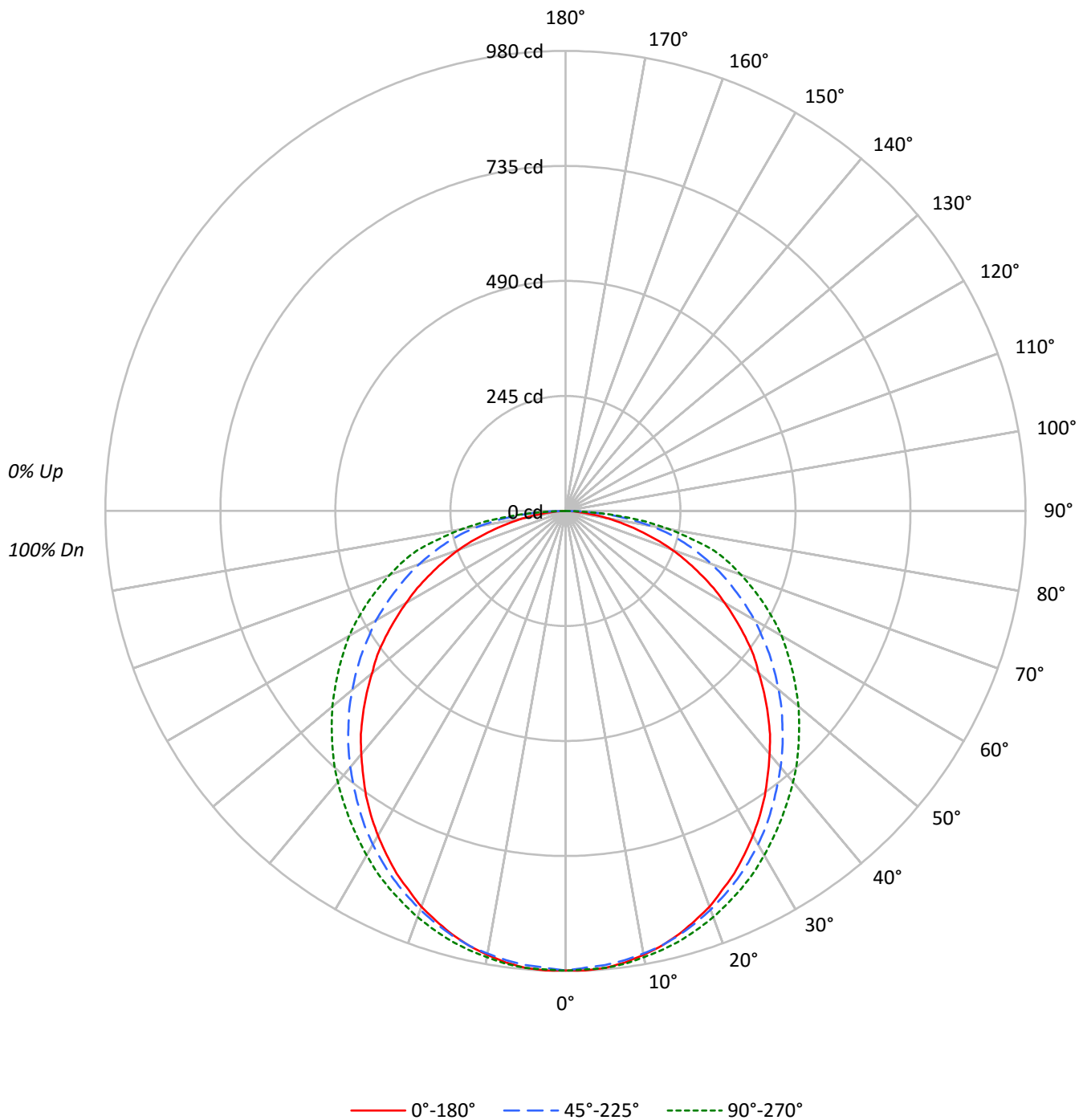
Input Watts (W): 25.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1317	1317	1317
5°	1319	1311	1319
10°	1312	1308	1318
15°	1300	1303	1320
20°	1285	1294	1318
25°	1265	1285	1317
30°	1241	1274	1316
35°	1216	1262	1317
40°	1188	1252	1325
45°	1160	1244	1336
50°	1126	1241	1356
55°	1097	1243	1384
60°	1055	1253	1431
65°	1006	1266	1483
70°	953	1306	1565
75°	850	1362	1710
80°	724	1442	1747
85°	517	1430	1672



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.6	3.1
10°-20°	264.9	8.9
20°-30°	400.1	13.5
30°-40°	482.2	16.2
40°-50°	506.2	17.1
50°-60°	473.6	16.0
60°-70°	391.1	13.2
70°-80°	266.5	9.0
80°-90°	90.9	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°	757.6	25.5
0°-40°	1239.8	41.8
0°-60°	2219.5	74.8
0°-90°	2968.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2968.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	979	979	979	979	979	
5°	977	976	971	977	977	93
15°	934	934	936	945	947	263
25°	852	856	866	882	887	392
35°	740	748	768	794	802	463
45°	610	622	654	689	702	470
55°	468	486	530	573	590	417
65°	316	343	398	448	466	314
75°	164	201	262	311	329	174
85°	34	66	93	104	108	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	978.8	978.8	978.8	978.8	978.8
2.5°	979.8	978.8	973.9	978.8	977.8
5°	976.9	975.9	970.9	976.9	976.9
7.5°	970.0	970.0	965.0	971.9	972.9
10°	960.1	960.1	957.2	965.0	965.0
12.5°	948.3	948.3	948.3	956.2	957.2
15°	933.5	934.5	935.5	945.3	947.3
17.5°	915.8	917.8	920.7	932.5	934.5
20°	897.1	899.1	904.0	917.8	920.7
22.5°	873.5	878.4	885.3	901.0	904.0
25°	851.8	855.7	865.6	882.3	887.2
27.5°	825.2	831.1	843.9	861.6	868.5
30°	798.6	804.5	820.3	841.0	846.9
32.5°	770.1	778.9	795.7	817.3	824.2
35°	740.5	748.4	768.1	793.7	801.6
37.5°	708.0	718.9	740.5	768.1	777.9
40°	676.5	688.3	712.9	742.5	754.3
42.5°	645.0	656.8	684.4	717.9	729.7
45°	609.5	622.3	653.9	689.3	702.1
47.5°	574.1	589.9	624.3	661.7	675.5
50°	537.7	555.4	592.8	632.2	648.0
52.5°	505.2	521.9	561.3	603.6	618.4
55°	467.7	486.5	529.8	573.1	589.9
57.5°	429.3	450.0	496.3	543.6	560.3
60°	391.9	414.6	465.8	513.0	531.8
62.5°	355.5	378.1	431.3	480.5	499.3
65°	316.1	342.7	397.8	448.1	465.8
67.5°	278.7	307.2	365.3	414.6	432.3
70°	242.2	269.8	331.9	380.1	397.8
72.5°	202.9	234.4	296.4	346.6	365.3
75°	163.5	200.9	261.9	311.2	328.9
77.5°	127.0	165.4	226.5	266.9	275.7
80°	93.5	132.9	186.1	214.7	225.5
82.5°	60.1	99.5	141.8	162.5	171.3
85°	33.5	66.0	92.6	104.4	108.3
87.5°	13.8	28.6	37.4	42.3	42.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)