

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: P309975

Luminaire Tested: **24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-5700K**

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: P309975
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (168) 5700K 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: 2228.0 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

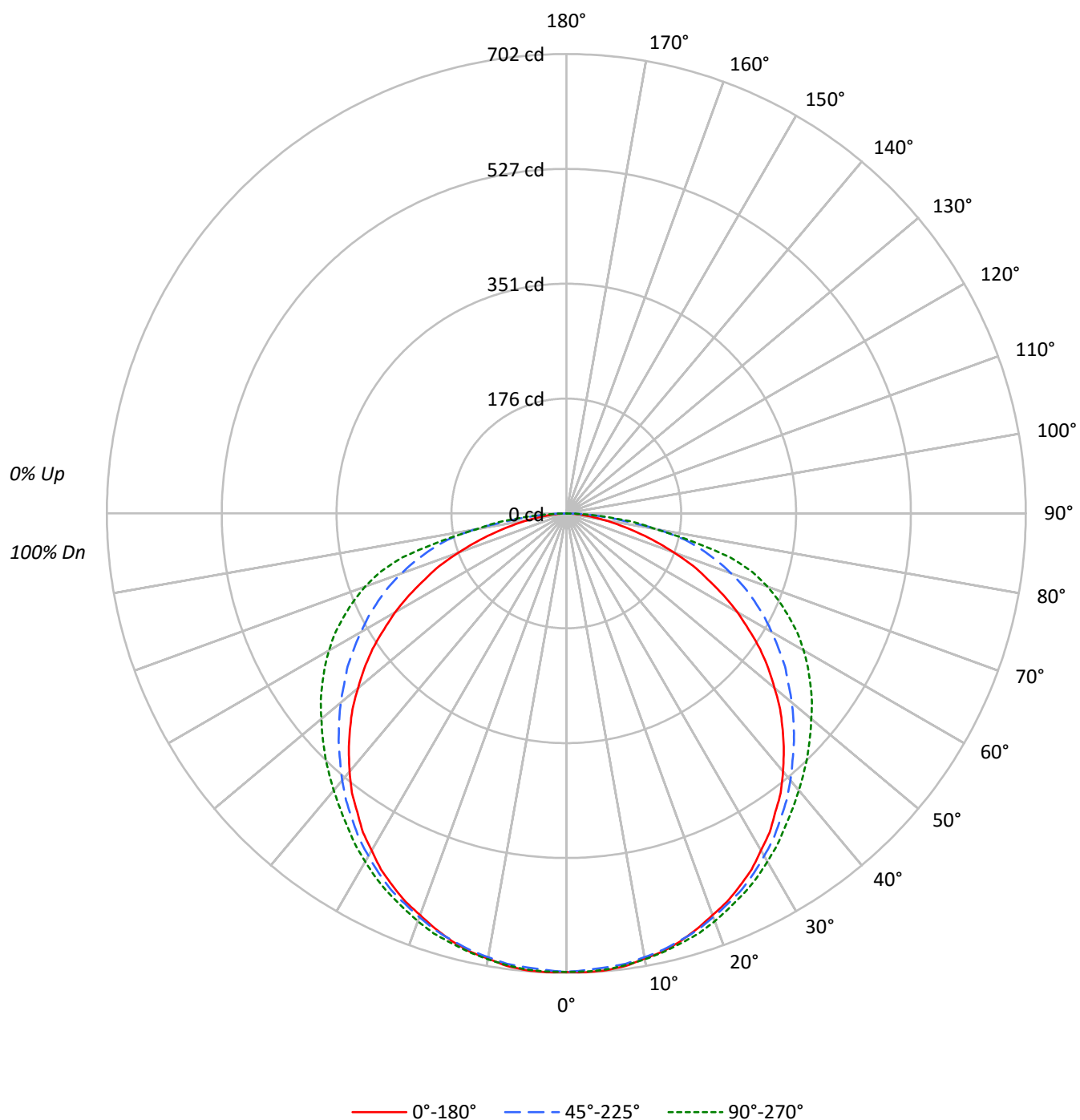
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309975

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P309975

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-5700K

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	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	943	943	943
5°	946	940	945
10°	944	941	945
15°	942	941	947
20°	935	940	949
25°	932	942	952
30°	924	939	955
35°	915	937	958
40°	905	936	971
45°	890	936	993
50°	870	942	1023
55°	848	957	1068
60°	812	975	1127
65°	760	1010	1196
70°	691	1056	1287
75°	586	1115	1344
80°	463	1122	1087
85°	341	854	956



TEST NUMBER: P309975

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	3.0
10°-20°	191.3	8.6
20°-30°	292.5	13.1
30°-40°	357.6	16.0
40°-50°	381.1	17.1
50°-60°	364.4	16.4
60°-70°	308.7	13.9
70°-80°	207.5	9.3
80°-90°	58.5	2.6
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°	550.2	24.7
0°-40°	907.8	40.7
0°-60°	1653.3	74.2
0°-90°	2228.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2228.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	701	701	701	701	701	
5°	701	700	696	700	700	67
15°	676	676	675	681	680	191
25°	628	630	634	640	641	289
35°	557	561	570	581	584	349
45°	468	475	492	513	522	361
55°	361	375	408	440	455	322
65°	239	263	317	359	376	237
75°	113	154	214	251	259	121
85°	22	45	55	60	62	27
90°	0	0	0	0	0	



TEST NUMBER: P309975

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	700.6	700.6	700.6	700.6	700.6
2.5°	701.7	701.7	698.4	700.6	700.6
5°	700.6	699.5	696.2	699.5	699.5
7.5°	697.3	696.2	694.0	697.3	696.2
10°	690.7	690.7	688.5	691.8	691.8
12.5°	685.2	684.1	683.0	687.4	686.3
15°	676.3	676.3	675.2	680.8	679.6
17.5°	665.3	666.4	667.5	671.9	673.0
20°	653.1	655.3	656.4	663.1	663.1
22.5°	642.1	643.2	645.4	652.0	652.0
25°	627.7	629.9	634.3	639.9	641.0
27.5°	613.3	614.4	620.0	627.7	628.8
30°	594.6	597.9	604.5	613.3	614.4
32.5°	578.0	581.3	589.0	597.9	600.1
35°	557.0	561.4	570.2	581.3	583.5
37.5°	538.2	541.5	552.6	564.7	568.0
40°	515.0	521.6	532.7	547.0	552.6
42.5°	491.8	498.4	511.7	530.5	537.1
45°	467.5	475.2	491.8	512.8	521.6
47.5°	443.2	452.0	470.8	495.1	505.0
50°	415.5	426.6	449.8	477.4	488.5
52.5°	389.0	402.3	427.7	458.6	473.0
55°	361.4	374.6	407.8	439.8	455.3
57.5°	330.4	348.1	384.6	421.0	437.6
60°	301.7	318.3	362.5	402.3	418.8
62.5°	270.8	292.9	340.4	382.4	398.9
65°	238.7	263.0	317.2	359.2	375.7
67.5°	210.0	236.5	294.0	336.0	352.5
70°	175.7	208.9	268.5	310.5	327.1
72.5°	143.7	180.1	242.0	282.9	298.4
75°	112.7	153.6	214.4	250.9	258.6
77.5°	84.0	127.1	185.7	201.1	195.6
80°	59.7	101.7	144.8	137.0	140.3
82.5°	38.7	77.4	89.5	101.7	105.0
85°	22.1	45.3	55.3	59.7	61.9
87.5°	9.9	16.6	22.1	22.1	21.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)