

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: P309256

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-HRP-CP125-W2A-U-6500K**

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: P309256
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-HRP-CP125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (336) 6500K 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: 2492.0 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

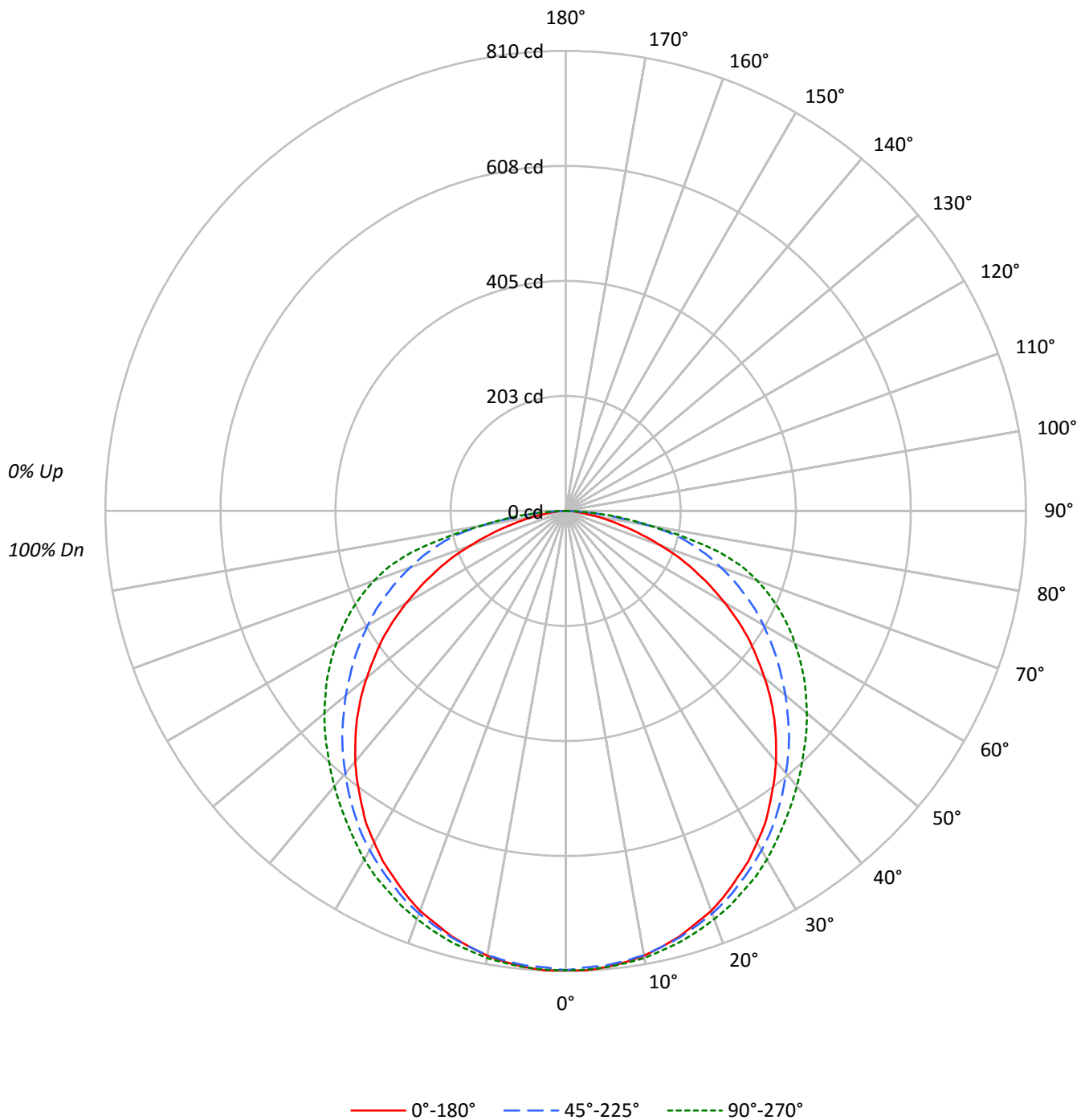
Input Watts (W): 27.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	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	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1088	1088	1088
5°	1089	1085	1089
10°	1086	1085	1092
15°	1080	1083	1093
20°	1073	1080	1095
25°	1059	1075	1097
30°	1047	1071	1101
35°	1030	1066	1102
40°	1012	1059	1112
45°	989	1058	1130
50°	957	1057	1160
55°	923	1065	1202
60°	870	1081	1255
65°	804	1106	1325
70°	702	1145	1412
75°	569	1204	1459
80°	420	1180	1180
85°	323	869	982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	3.1
10°-20°	219.9	8.8
20°-30°	334.8	13.4
30°-40°	406.6	16.3
40°-50°	429.6	17.2
50°-60°	405.3	16.3
60°-70°	337.0	13.5
70°-80°	221.7	8.9
80°-90°	60.4	2.4
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°	631.4	25.3
0°-40°	1038.0	41.7
0°-60°	1872.8	75.2
0°-90°	2492.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2492.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	808	808	808	808	808	
5°	806	806	803	806	806	77
15°	775	776	777	784	784	219
25°	714	718	724	736	739	329
35°	627	634	649	666	671	393
45°	520	530	556	583	594	400
55°	393	410	454	497	512	350
65°	252	282	347	398	416	250
75°	110	160	232	274	281	118
85°	21	46	56	63	64	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	808.5	808.5	808.5	808.5	808.5
2.5°	809.6	808.5	804.4	808.5	808.5
5°	806.4	806.4	803.3	806.4	806.4
7.5°	801.2	801.2	799.1	803.3	803.3
10°	795.0	795.0	793.9	799.1	799.1
12.5°	785.6	786.6	785.6	791.8	791.8
15°	775.1	776.2	777.2	784.5	784.5
17.5°	761.6	763.7	765.8	774.1	775.1
20°	749.1	750.1	754.3	763.7	764.7
22.5°	732.4	735.5	740.7	750.1	753.2
25°	713.6	717.8	724.0	736.5	738.6
27.5°	695.9	699.0	707.3	720.9	725.1
30°	673.9	679.2	689.6	703.2	708.4
32.5°	653.1	658.3	670.8	685.4	689.6
35°	627.0	634.3	648.9	665.6	670.8
37.5°	602.0	609.3	627.0	645.8	652.0
40°	575.9	584.2	603.0	624.9	633.3
42.5°	547.7	559.2	580.1	604.1	613.4
45°	519.5	530.0	556.1	583.2	593.6
47.5°	489.3	501.8	530.0	562.3	574.8
50°	457.0	472.6	504.9	540.4	554.0
52.5°	424.6	442.3	478.9	518.5	533.1
55°	393.3	410.0	453.8	496.6	512.2
57.5°	358.9	379.7	427.7	473.6	489.3
60°	323.4	346.4	401.7	449.6	466.3
62.5°	287.9	314.0	376.6	424.6	442.3
65°	252.5	281.7	347.4	398.5	416.3
67.5°	218.0	250.4	320.3	371.4	389.1
70°	178.4	219.1	291.1	341.1	358.9
72.5°	141.9	188.8	262.9	309.9	325.5
75°	109.5	159.6	231.6	274.4	280.6
77.5°	80.3	130.4	199.3	213.9	214.9
80°	54.2	104.3	152.3	150.2	152.3
82.5°	35.5	78.2	96.0	107.5	108.5
85°	20.9	45.9	56.3	62.6	63.6
87.5°	10.4	15.6	19.8	20.9	23.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)