

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: P309299

Luminaire Tested: **24FCZ2-35-UNV-L82765-HRP-CP125-W2A-U-5500K**

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: P309299
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: 24FCZ2-35-UNV-L82765-HRP-CP125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (168) 5500K 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: 2507.0 lumens
Efficiency: N/A
Efficacy: 87.0 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

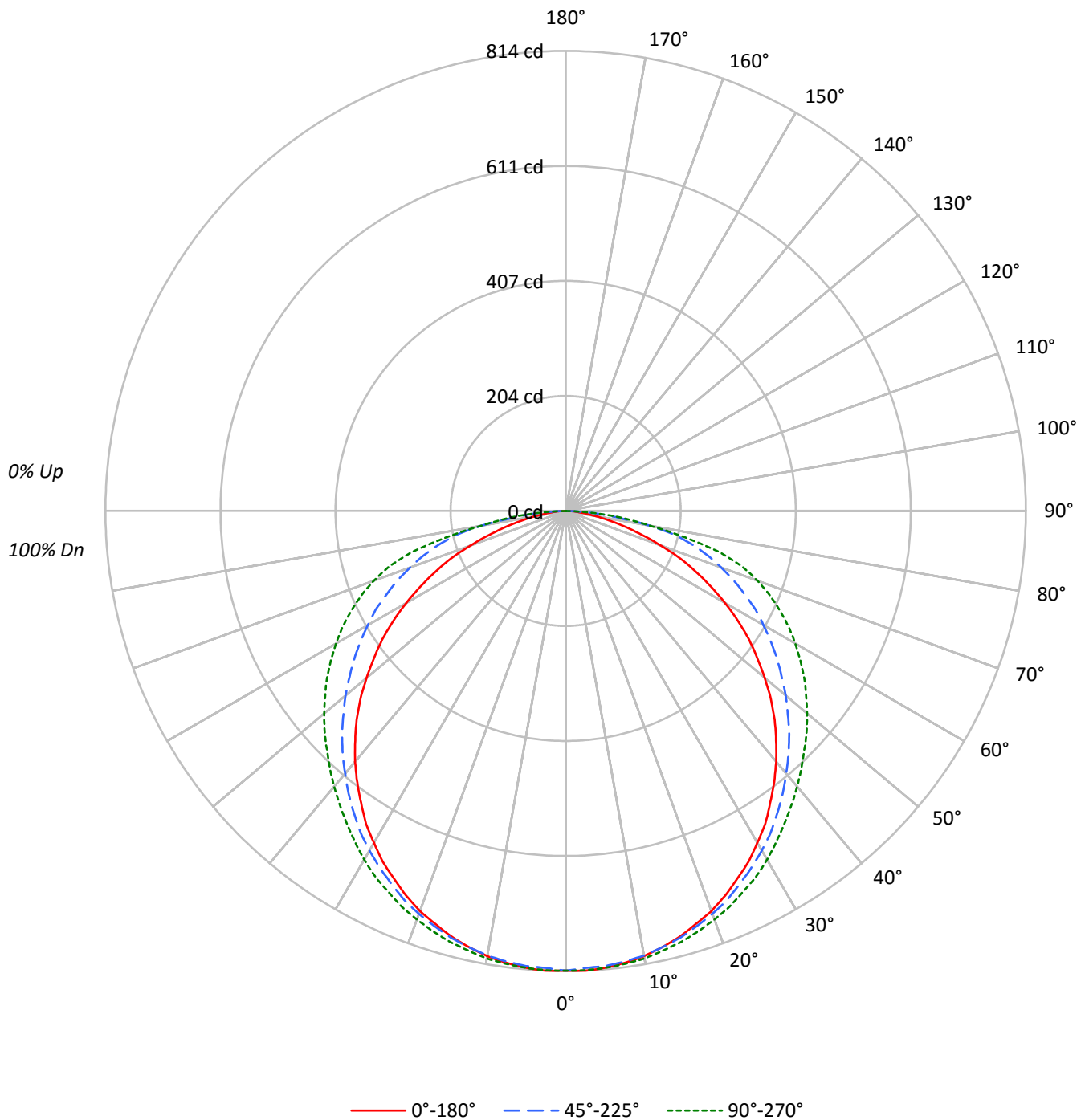
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	98	94	105	101	96	93		96	93	90		92	90	87		89	86	84
2	98	89	82	76	95	87	80	75		83	78	73		80	75	71		77	73	70
3	89	78	69	62	86	76	68	62		73	66	61		70	64	59		68	63	58
4	81	68	59	52	79	67	59	52		65	57	51		62	56	50		60	54	50
5	74	61	52	45	72	60	51	45		58	50	44		56	49	44		54	48	43
6	69	55	46	39	67	54	45	39		52	44	38		50	43	38		49	42	38
7	63	50	41	34	62	49	40	34		47	39	34		46	39	34		44	38	33
8	59	45	36	30	57	44	36	30		43	36	30		42	35	30		41	34	30
9	55	41	33	27	54	41	33	27		40	32	27		39	32	27		38	31	27
10	52	38	30	25	50	38	30	25		37	30	25		36	29	24		35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1094	1094	1094
5°	1096	1092	1096
10°	1093	1091	1098
15°	1086	1089	1099
20°	1079	1086	1102
25°	1066	1081	1103
30°	1053	1078	1107
35°	1036	1072	1109
40°	1017	1065	1119
45°	995	1064	1136
50°	962	1063	1167
55°	928	1071	1209
60°	876	1087	1262
65°	809	1113	1333
70°	706	1152	1420
75°	573	1211	1468
80°	423	1187	1187
85°	324	875	988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.1	3.1
10°-20°	221.3	8.8
20°-30°	336.9	13.4
30°-40°	409.0	16.3
40°-50°	432.1	17.2
50°-60°	407.8	16.3
60°-70°	339.0	13.5
70°-80°	223.1	8.9
80°-90°	60.8	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°	635.2	25.3
0°-40°	1044.2	41.7
0°-60°	1884.1	75.2
0°-90°	2507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2507.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	813	813	813	813	813	
5°	811	811	808	811	811	77
15°	780	781	782	789	789	220
25°	718	722	728	741	743	331
35°	631	638	653	670	675	395
45°	523	533	559	587	597	403
55°	396	412	457	500	515	352
65°	254	283	350	401	419	251
75°	110	161	233	276	282	119
85°	21	46	57	63	64	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	813.4	813.4	813.4	813.4	813.4
2.5°	814.4	813.4	809.2	813.4	813.4
5°	811.3	811.3	808.2	811.3	811.3
7.5°	806.1	806.1	804.0	808.2	808.2
10°	799.8	799.8	798.7	804.0	804.0
12.5°	790.3	791.4	790.3	796.6	796.6
15°	779.8	780.9	781.9	789.3	789.3
17.5°	766.2	768.3	770.4	778.8	779.8
20°	753.6	754.6	758.8	768.3	769.3
22.5°	736.8	739.9	745.2	754.6	757.8
25°	717.9	722.1	728.4	741.0	743.1
27.5°	700.0	703.2	711.6	725.2	729.4
30°	678.0	683.3	693.7	707.4	712.6
32.5°	657.0	662.3	674.9	689.6	693.7
35°	630.8	638.1	652.8	669.6	674.9
37.5°	605.6	612.9	630.8	649.7	656.0
40°	579.3	587.7	606.6	628.7	637.1
42.5°	551.0	562.6	583.5	607.7	617.1
45°	522.7	533.2	559.4	586.7	597.2
47.5°	492.2	504.8	533.2	565.7	578.3
50°	459.7	475.4	508.0	543.7	557.3
52.5°	427.2	445.0	481.7	521.6	536.3
55°	395.7	412.5	456.6	499.6	515.3
57.5°	361.0	382.0	430.3	476.5	492.2
60°	325.4	348.4	404.1	452.4	469.1
62.5°	289.7	315.9	378.9	427.2	445.0
65°	254.0	283.4	349.5	400.9	418.8
67.5°	219.4	251.9	322.2	373.6	391.5
70°	179.5	220.4	292.8	343.2	361.0
72.5°	142.7	190.0	264.5	311.7	327.5
75°	110.2	160.6	233.0	276.0	282.3
77.5°	80.8	131.2	200.5	215.2	216.2
80°	54.6	105.0	153.2	151.1	153.2
82.5°	35.7	78.7	96.6	108.1	109.2
85°	21.0	46.2	56.7	63.0	64.0
87.5°	10.5	15.7	19.9	21.0	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)