

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: P309616

Luminaire Tested: **24FCZ2-55HE-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: P309616
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: 24FCZ2-55HE-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: 3931.0 lumens
Efficiency: N/A
Efficacy: 87.4 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

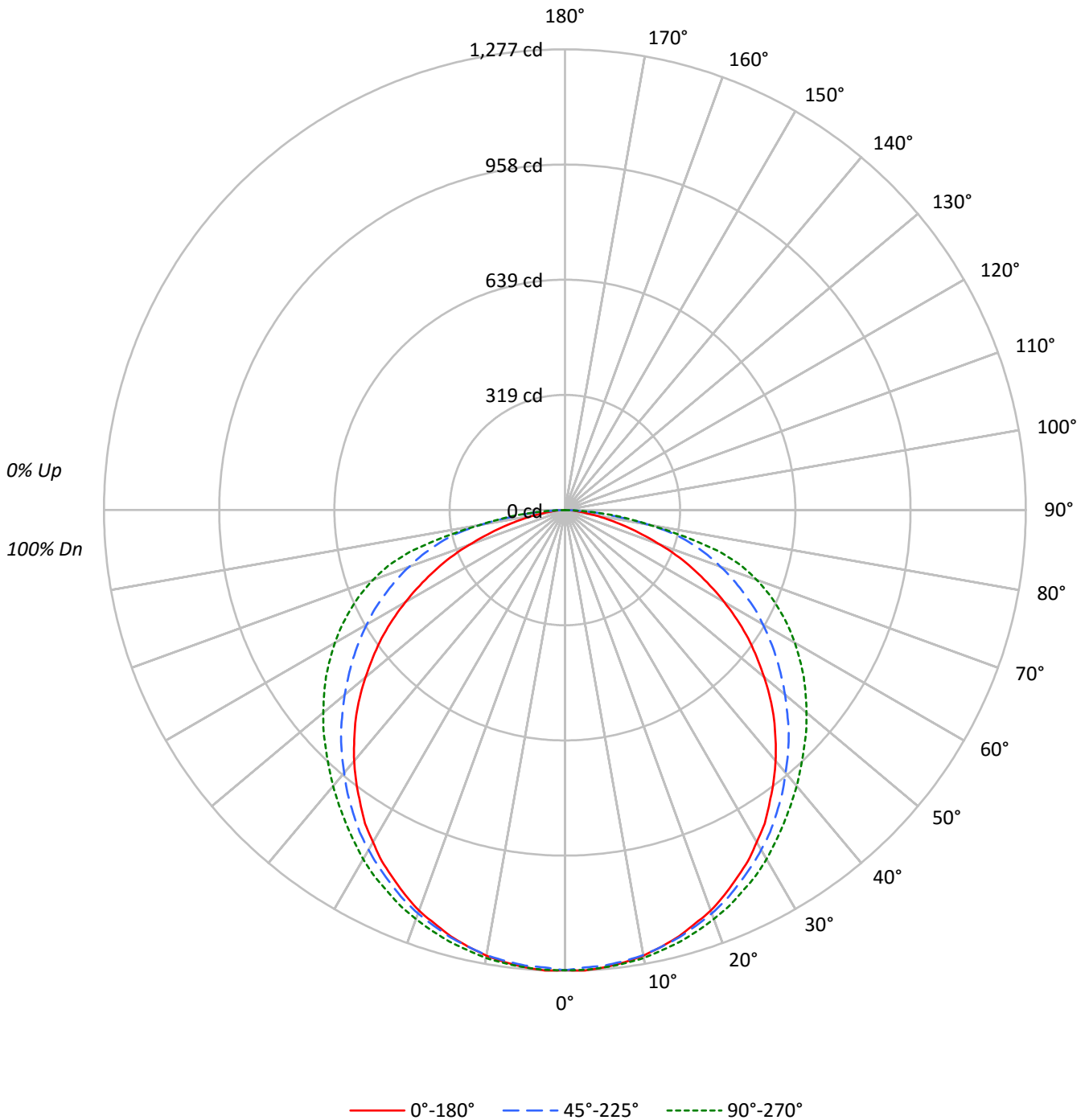
Input Watts (W): 45
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1716	1716	1716
5°	1718	1712	1718
10°	1713	1711	1722
15°	1703	1708	1724
20°	1692	1704	1727
25°	1671	1696	1730
30°	1652	1690	1736
35°	1625	1681	1738
40°	1596	1671	1754
45°	1560	1669	1782
50°	1509	1667	1829
55°	1455	1679	1895
60°	1373	1705	1979
65°	1268	1745	2090
70°	1107	1806	2227
75°	898	1899	2301
80°	663	1862	1862
85°	508	1372	1550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.8	3.1
10°-20°	347.0	8.8
20°-30°	528.2	13.4
30°-40°	641.4	16.3
40°-50°	677.6	17.2
50°-60°	639.4	16.3
60°-70°	531.6	13.5
70°-80°	349.8	8.9
80°-90°	95.3	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°	996.0	25.3
0°-40°	1637.3	41.7
0°-60°	2954.3	75.2
0°-90°	3931.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3931.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1275	1275	1275	1275	1275	
5°	1272	1272	1267	1272	1272	121
15°	1223	1224	1226	1238	1238	345
25°	1126	1132	1142	1162	1165	519
35°	989	1001	1024	1050	1058	619
45°	820	836	877	920	936	631
55°	620	647	716	783	808	553
65°	398	444	548	629	657	394
75°	173	252	365	433	443	186
85°	33	72	89	99	100	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1275.4	1275.4	1275.4	1275.4	1275.4
2.5°	1277.1	1275.4	1268.8	1275.4	1275.4
5°	1272.1	1272.1	1267.2	1272.1	1272.1
7.5°	1263.9	1263.9	1260.6	1267.2	1267.2
10°	1254.0	1254.0	1252.4	1260.6	1260.6
12.5°	1239.2	1240.9	1239.2	1249.1	1249.1
15°	1222.8	1224.4	1226.0	1237.6	1237.6
17.5°	1201.4	1204.7	1207.9	1221.1	1222.8
20°	1181.6	1183.3	1189.8	1204.7	1206.3
22.5°	1155.3	1160.2	1168.4	1183.3	1188.2
25°	1125.7	1132.2	1142.1	1161.9	1165.2
27.5°	1097.7	1102.6	1115.8	1137.2	1143.8
30°	1063.1	1071.3	1087.8	1109.2	1117.4
32.5°	1030.2	1038.4	1058.2	1081.2	1087.8
35°	989.1	1000.6	1023.6	1050.0	1058.2
37.5°	949.6	961.1	989.1	1018.7	1028.6
40°	908.4	921.6	951.2	985.8	998.9
42.5°	864.0	882.1	915.0	952.9	967.7
45°	819.6	836.0	877.2	919.9	936.4
47.5°	771.8	791.6	836.0	887.0	906.8
50°	720.8	745.5	796.5	852.5	873.9
52.5°	669.8	697.8	755.4	817.9	841.0
55°	620.4	646.8	715.9	783.4	808.0
57.5°	566.1	599.0	674.7	747.1	771.8
60°	510.2	546.4	633.6	709.3	735.6
62.5°	454.2	495.4	594.1	669.8	697.8
65°	398.3	444.3	548.0	628.7	656.6
67.5°	344.0	395.0	505.2	585.9	613.8
70°	281.4	345.6	459.1	538.1	566.1
72.5°	223.8	297.9	414.7	488.8	513.5
75°	172.8	251.8	365.3	432.8	442.7
77.5°	126.7	205.7	314.3	337.4	339.0
80°	85.6	164.6	240.3	237.0	240.3
82.5°	56.0	123.4	151.4	169.5	171.2
85°	32.9	72.4	88.9	98.7	100.4
87.5°	16.5	24.7	31.3	32.9	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)