

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: METALUX

Report Number: P272136

Luminaire Tested: **24CZ2-35HE-S-UNV-L950-CD1-U**

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: P272136
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35HE-S-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (168) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3413.0 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

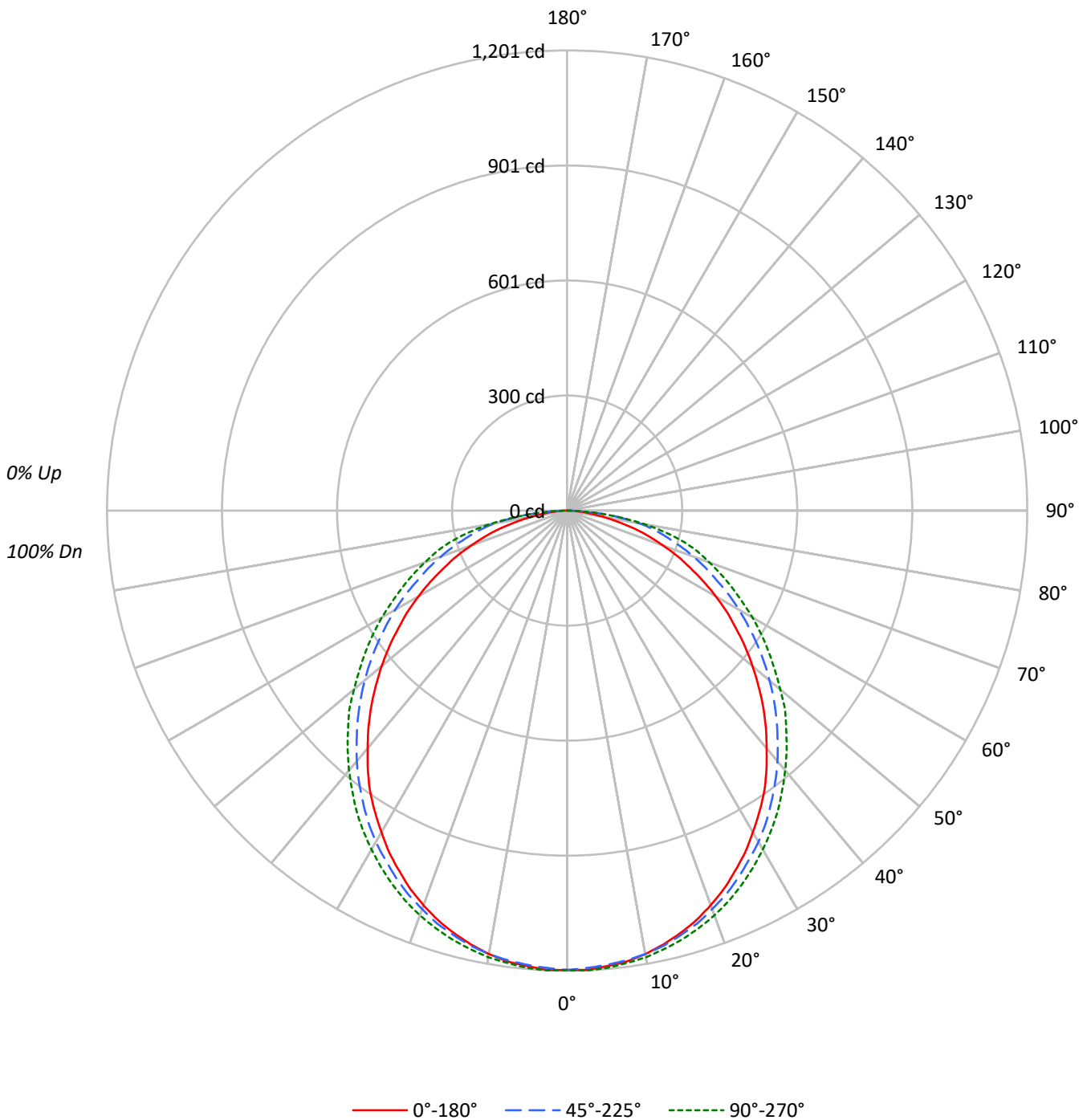
Input Watts (W): 26.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1613	1613	1613
5°	1612	1608	1618
10°	1606	1606	1617
15°	1590	1598	1614
20°	1569	1585	1610
25°	1540	1569	1600
30°	1506	1551	1587
35°	1473	1526	1574
40°	1422	1501	1556
45°	1376	1471	1539
50°	1323	1443	1520
55°	1264	1416	1506
60°	1205	1394	1502
65°	1129	1370	1512
70°	1045	1378	1552
75°	936	1403	1640
80°	756	1487	1605
85°	570	1306	1272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.5	3.3
10°-20°	324.3	9.5
20°-30°	487.6	14.3
30°-40°	580.8	17.0
40°-50°	594.4	17.4
50°-60°	535.1	15.7
60°-70°	420.2	12.3
70°-80°	272.8	8.0
80°-90°	84.4	2.5
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°	925.4	27.1
0°-40°	1506.2	44.1
0°-60°	2635.7	77.2
0°-90°	3413.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3413.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1199	1199	1199	1199	1199	
5°	1194	1196	1190	1197	1198	113
15°	1142	1145	1147	1157	1159	322
25°	1038	1046	1057	1074	1078	478
35°	896	907	929	952	958	559
45°	723	740	773	802	809	557
55°	539	563	604	635	642	483
65°	354	382	430	466	475	353
75°	180	215	270	307	316	190
85°	37	68	85	82	82	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1199.0	1199.0	1199.0	1199.0	1199.0
2.5°	1200.1	1200.1	1194.7	1200.1	1201.2
5°	1193.6	1195.8	1190.3	1196.8	1197.9
7.5°	1187.1	1187.1	1183.8	1190.3	1191.4
10°	1175.2	1176.2	1175.2	1182.7	1183.8
12.5°	1160.0	1162.1	1163.2	1170.8	1171.9
15°	1141.6	1144.8	1147.0	1156.7	1158.9
17.5°	1121.0	1124.2	1129.6	1140.5	1142.6
20°	1096.0	1100.4	1106.9	1121.0	1124.2
22.5°	1068.9	1073.3	1084.1	1097.1	1102.5
25°	1037.5	1046.2	1057.0	1074.3	1077.6
27.5°	1006.0	1013.6	1027.7	1046.2	1050.5
30°	969.2	981.1	998.5	1016.9	1021.2
32.5°	933.4	945.3	965.9	985.4	990.9
35°	896.5	907.4	929.1	951.8	958.3
37.5°	854.3	868.4	892.2	915.0	921.5
40°	809.8	827.2	854.3	878.1	885.7
42.5°	767.5	786.0	813.1	839.1	847.8
45°	723.1	740.4	773.0	802.2	808.7
47.5°	677.6	697.1	731.8	761.0	771.9
50°	632.0	652.6	689.5	719.8	726.3
52.5°	586.5	608.2	647.2	679.7	683.0
55°	538.8	562.6	603.8	635.3	641.8
57.5°	495.4	516.0	560.5	593.0	600.6
60°	447.7	470.5	518.2	548.6	558.3
62.5°	402.2	426.0	475.9	506.3	514.9
65°	354.5	381.6	430.4	466.2	474.8
67.5°	313.3	339.3	391.4	426.0	434.7
70°	265.6	294.9	350.2	385.9	394.6
72.5°	224.4	254.8	310.1	344.7	357.8
75°	180.0	214.7	269.9	306.8	315.5
77.5°	136.6	176.7	233.1	261.3	261.3
80°	97.6	139.8	191.9	204.9	207.1
82.5°	64.0	105.2	142.0	140.9	140.9
85°	36.9	68.3	84.6	82.4	82.4
87.5°	14.1	28.2	30.4	30.4	29.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)