

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: P276472

Luminaire Tested: **24CZ2-35HE-S-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276472
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-L82765-W2A1-U-3000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3302.1 lumens
Efficiency: N/A
Efficacy: 137.6 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

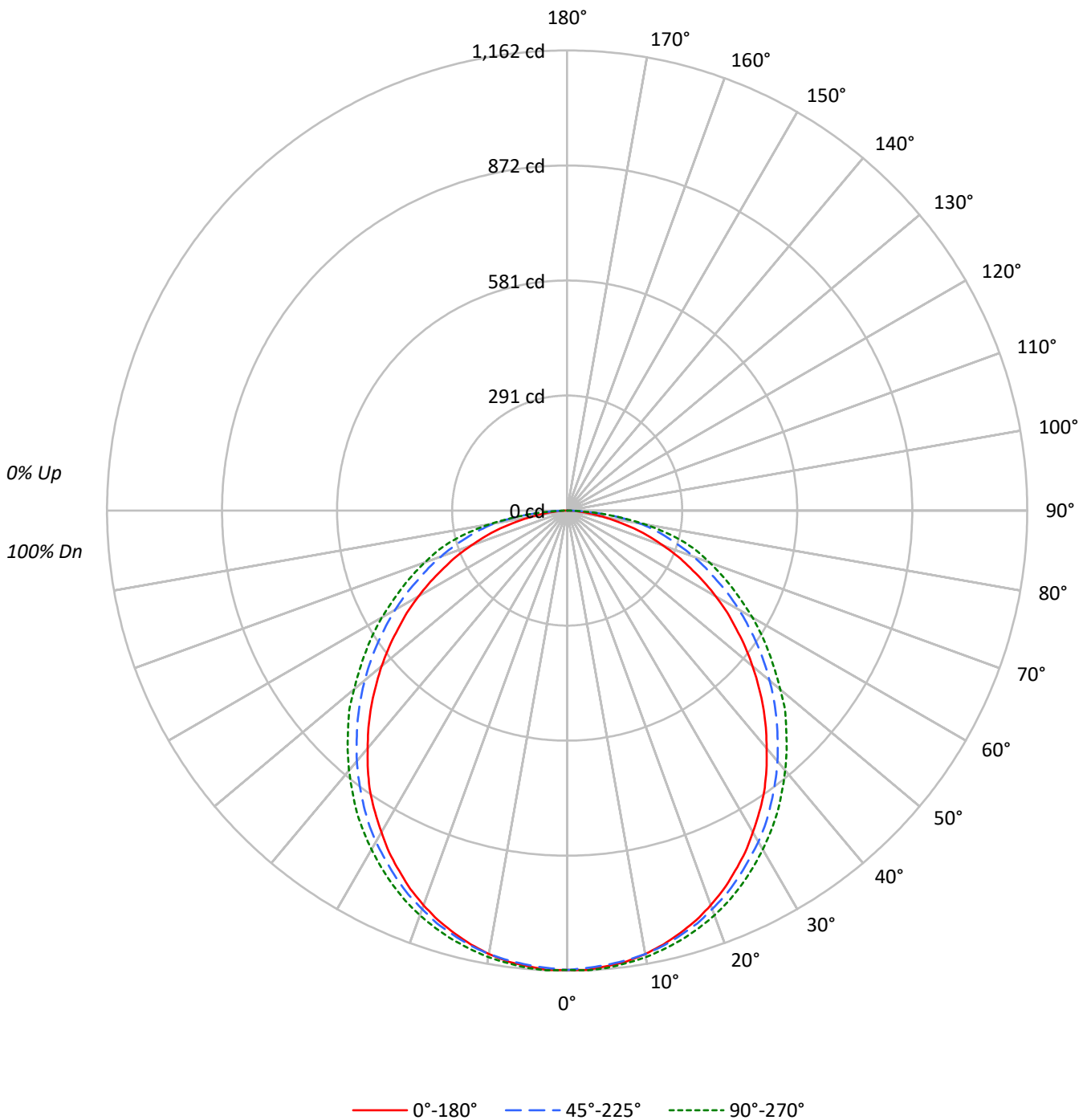
Input Watts (W): 23.994
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P276472

CATALOG NUMBER: 24CZ2-35HE-S-UNV-L82765-W2A1-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P276472

CATALOG NUMBER: 24CZ2-35HE-S-UNV-L82765-W2A1-U-3000K

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°	1561	1561	1561
5°	1560	1555	1565
10°	1553	1553	1565
15°	1538	1546	1562
20°	1518	1533	1557
25°	1490	1518	1548
30°	1457	1501	1535
35°	1425	1476	1523
40°	1376	1452	1505
45°	1331	1423	1489
50°	1280	1396	1471
55°	1223	1370	1457
60°	1166	1349	1454
65°	1092	1326	1463
70°	1011	1333	1502
75°	905	1358	1587
80°	731	1438	1552
85°	551	1263	1230



TEST NUMBER: P276472

CATALOG NUMBER: 24CZ2-35HE-S-UNV-L82765-W2A1-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.8	3.3
10°-20°	313.8	9.5
20°-30°	471.7	14.3
30°-40°	561.9	17.0
40°-50°	575.1	17.4
50°-60°	517.7	15.7
60°-70°	406.6	12.3
70°-80°	263.9	8.0
80°-90°	81.6	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°	895.3	27.1
0°-40°	1457.2	44.1
0°-60°	2550.0	77.2
0°-90°	3302.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3302.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1160	1160	1160	1160	1160	
5°	1155	1157	1152	1158	1159	110
15°	1104	1108	1110	1119	1121	311
25°	1004	1012	1023	1039	1043	462
35°	867	878	899	921	927	541
45°	700	716	748	776	782	539
55°	521	544	584	615	621	467
65°	343	369	416	451	459	341
75°	174	208	261	297	305	184
85°	36	66	82	80	80	43
90°	0	0	0	0	0	



TEST NUMBER: P276472

CATALOG NUMBER: 24CZ2-35HE-S-UNV-L82765-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1160.0	1160.0	1160.0	1160.0	<i>1160.0</i>
2.5°	<i>1161.1</i>	<i>1161.1</i>	<i>1155.8</i>	<i>1161.1</i>	<i>1162.1</i>
5°	1154.8	1156.9	1151.6	1157.9	<i>1159.0</i>
7.5°	1148.5	1148.5	1145.3	1151.6	<i>1152.7</i>
10°	1137.0	1138.0	1137.0	1144.3	<i>1145.3</i>
12.5°	1122.3	1124.4	1125.4	1132.8	<i>1133.8</i>
15°	1104.4	1107.6	1109.7	1119.1	<i>1121.2</i>
17.5°	1084.5	1087.7	1092.9	1103.4	<i>1105.5</i>
20°	1060.4	1064.6	1070.9	1084.5	<i>1087.7</i>
22.5°	1034.2	1038.4	1048.9	1061.4	<i>1066.7</i>
25°	1003.8	1012.1	1022.6	1039.4	<i>1042.6</i>
27.5°	973.3	980.7	994.3	1012.1	<i>1016.3</i>
30°	937.7	949.2	966.0	983.8	<i>988.0</i>
32.5°	903.1	914.6	934.5	953.4	<i>958.7</i>
35°	867.4	877.9	898.9	920.9	<i>927.2</i>
37.5°	826.5	840.1	863.2	885.2	<i>891.5</i>
40°	783.5	800.3	826.5	849.6	<i>856.9</i>
42.5°	742.6	760.4	786.6	811.8	<i>820.2</i>
45°	699.6	716.4	747.8	776.2	<i>782.4</i>
47.5°	655.5	674.4	708.0	736.3	<i>746.8</i>
50°	611.5	631.4	667.1	696.4	<i>702.7</i>
52.5°	567.4	588.4	626.2	657.6	<i>660.8</i>
55°	521.3	544.4	584.2	614.6	<i>620.9</i>
57.5°	479.3	499.3	542.3	573.7	<i>581.1</i>
60°	433.2	455.2	501.4	530.7	<i>540.2</i>
62.5°	389.1	412.2	460.4	489.8	<i>498.2</i>
65°	343.0	369.2	416.4	451.0	<i>459.4</i>
67.5°	303.1	328.3	378.6	412.2	<i>420.6</i>
70°	257.0	285.3	338.8	373.4	<i>381.8</i>
72.5°	217.1	246.5	300.0	333.5	<i>346.1</i>
75°	174.1	207.7	261.2	296.8	<i>305.2</i>
77.5°	132.2	171.0	225.5	252.8	<i>252.8</i>
80°	94.4	135.3	185.6	198.2	<i>200.3</i>
82.5°	61.9	101.7	137.4	136.4	<i>136.4</i>
85°	35.7	66.1	81.8	79.7	<i>79.7</i>
87.5°	13.6	27.3	29.4	29.4	<i>28.3</i>
90°	0.0	0.0	0.0	0.0	<i>0.0</i>

(END OF REPORT)