

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: P276317

Luminaire Tested: **24CZ2-35HE-S-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276317
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-L83050-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: 3305.0 lumens
Efficiency: N/A
Efficacy: 137.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

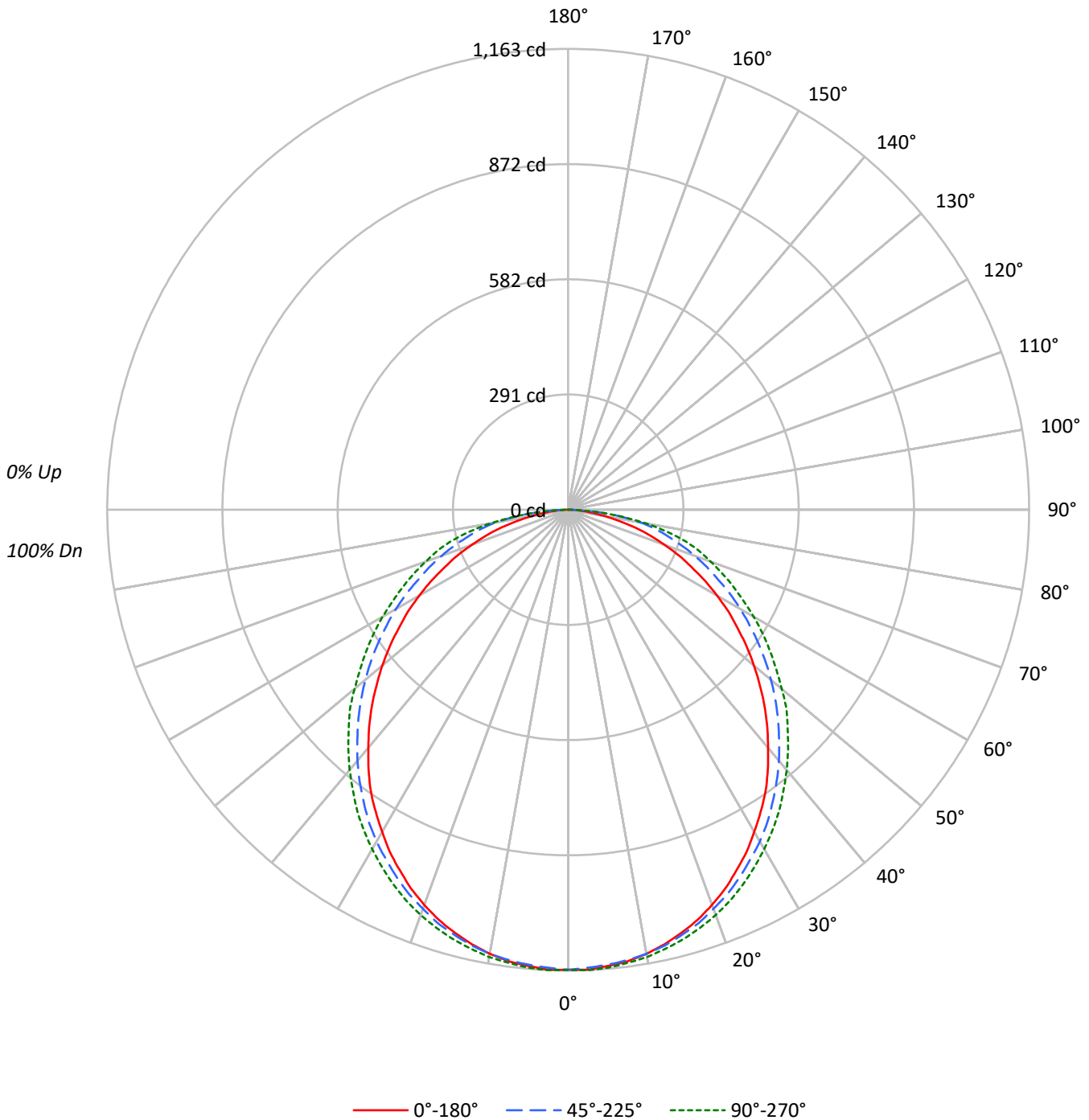
Input Watts (W): 24.13164
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1562	1562	1562
5°	1561	1557	1567
10°	1555	1555	1566
15°	1540	1547	1563
20°	1520	1535	1559
25°	1491	1519	1549
30°	1458	1502	1536
35°	1426	1478	1524
40°	1377	1453	1506
45°	1332	1424	1490
50°	1281	1398	1472
55°	1224	1372	1458
60°	1167	1350	1455
65°	1093	1327	1464
70°	1012	1334	1503
75°	906	1359	1588
80°	732	1440	1554
85°	551	1264	1232



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.9	3.3
10°-20°	314.1	9.5
20°-30°	472.1	14.3
30°-40°	562.4	17.0
40°-50°	575.6	17.4
50°-60°	518.2	15.7
60°-70°	407.0	12.3
70°-80°	264.1	8.0
80°-90°	81.7	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°	896.1	27.1
0°-40°	1458.5	44.1
0°-60°	2552.3	77.2
0°-90°	3305.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3305.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1161	1161	1161	1161	1161	
5°	1156	1158	1153	1159	1160	110
15°	1105	1109	1111	1120	1122	312
25°	1005	1013	1024	1040	1044	463
35°	868	879	900	922	928	542
45°	700	717	748	777	783	540
55°	522	545	585	615	622	468
65°	343	370	417	451	460	342
75°	174	208	261	297	306	184
85°	36	66	82	80	80	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1161.1	1161.1	1161.1	1161.1	<i>1161.1</i>
2.5°	<i>1162.1</i>	<i>1162.1</i>	<i>1156.9</i>	<i>1162.1</i>	<i>1163.2</i>
5°	1155.8	1157.9	1152.7	1159.0	<i>1160.0</i>
7.5°	1149.5	1149.5	1146.4	1152.7	<i>1153.7</i>
10°	1138.0	1139.0	1138.0	1145.3	<i>1146.4</i>
12.5°	1123.3	1125.4	1126.4	1133.8	<i>1134.8</i>
15°	1105.4	1108.6	1110.7	1120.1	<i>1122.2</i>
17.5°	1085.5	1088.6	1093.9	1104.4	<i>1106.5</i>
20°	1061.3	1065.5	1071.8	1085.5	<i>1088.6</i>
22.5°	1035.1	1039.3	1049.8	1062.4	<i>1067.6</i>
25°	1004.6	1013.0	1023.5	1040.3	<i>1043.5</i>
27.5°	974.2	981.6	995.2	1013.0	<i>1017.2</i>
30°	938.5	950.1	966.9	984.7	<i>988.9</i>
32.5°	903.9	915.4	935.4	954.3	<i>959.5</i>
35°	868.2	878.7	899.7	921.7	<i>928.0</i>
37.5°	827.2	840.9	864.0	886.0	<i>892.3</i>
40°	784.2	801.0	827.2	850.3	<i>857.7</i>
42.5°	743.3	761.1	787.3	812.5	<i>820.9</i>
45°	700.2	717.0	748.5	776.8	<i>783.1</i>
47.5°	656.1	675.0	708.6	737.0	<i>747.5</i>
50°	612.0	632.0	667.7	697.1	<i>703.4</i>
52.5°	567.9	588.9	626.7	658.2	<i>661.4</i>
55°	521.7	544.8	584.7	615.2	<i>621.5</i>
57.5°	479.8	499.7	542.7	574.2	<i>581.6</i>
60°	433.6	455.6	501.8	531.2	<i>540.6</i>
62.5°	389.5	412.6	460.9	490.3	<i>498.7</i>
65°	343.3	369.5	416.8	451.4	<i>459.8</i>
67.5°	303.4	328.6	379.0	412.6	<i>421.0</i>
70°	257.2	285.5	339.1	373.7	<i>382.1</i>
72.5°	217.3	246.7	300.2	333.8	<i>346.4</i>
75°	174.3	207.9	261.4	297.1	<i>305.5</i>
77.5°	132.3	171.1	225.7	253.0	<i>253.0</i>
80°	94.5	135.4	185.8	198.4	<i>200.5</i>
82.5°	61.9	101.8	137.5	136.5	<i>136.5</i>
85°	35.7	66.1	81.9	79.8	<i>79.8</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)