

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: P276474

Luminaire Tested: **24CZ2-35HE-S-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276474  
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-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3491.9 lumens  
Efficiency: N/A  
Efficacy: 142.8 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

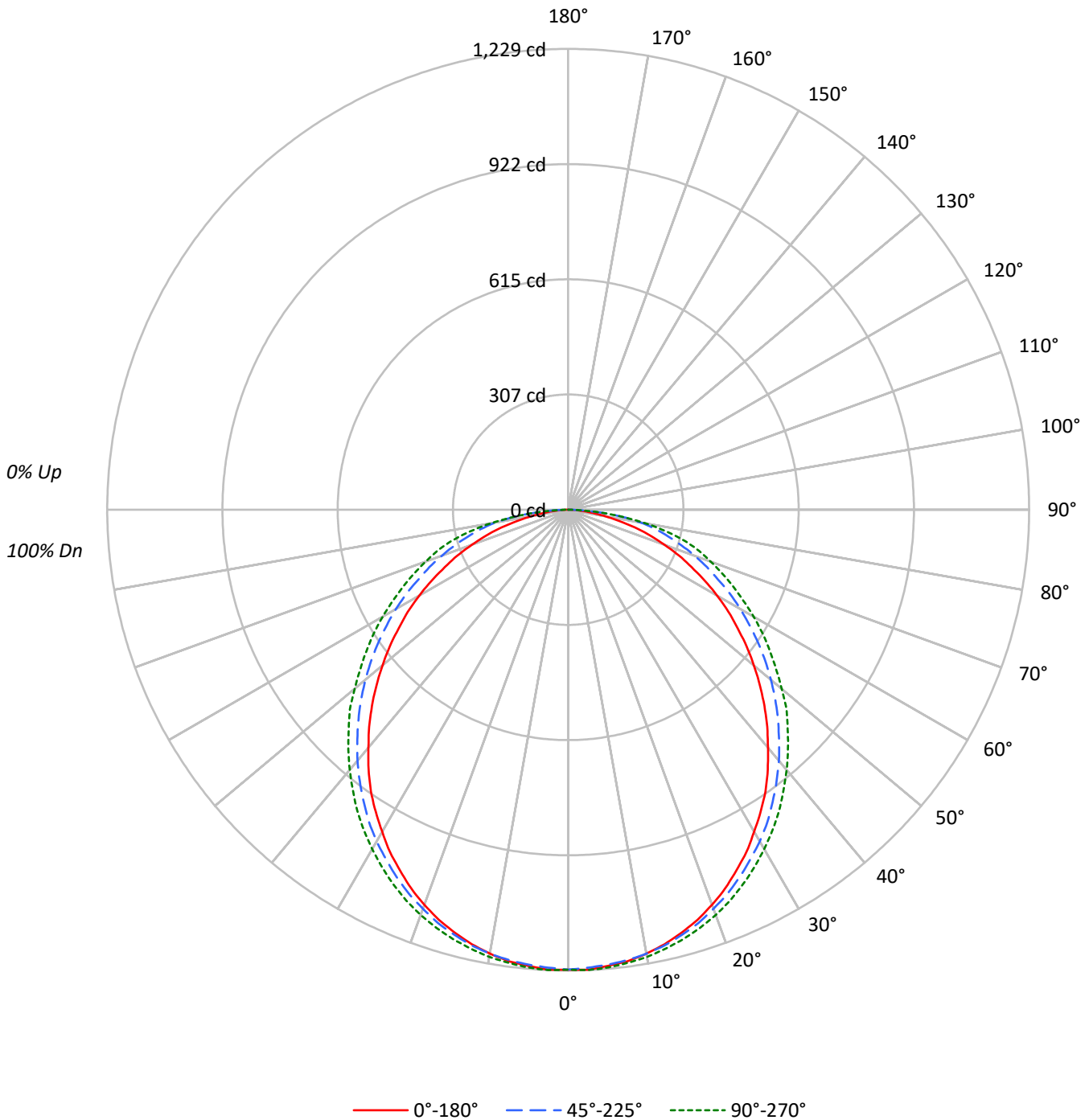
Input Watts (W): 24.459  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1651	1651	1651
5°	1649	1645	1655
10°	1643	1643	1655
15°	1627	1635	1652
20°	1606	1621	1647
25°	1576	1605	1637
30°	1541	1587	1623
35°	1507	1561	1611
40°	1455	1535	1592
45°	1408	1505	1574
50°	1353	1477	1555
55°	1293	1449	1540
60°	1233	1427	1537
65°	1155	1402	1547
70°	1069	1410	1588
75°	957	1436	1678
80°	773	1521	1641
85°	582	1335	1301



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.1	3.3
10°-20°	331.8	9.5
20°-30°	498.8	14.3
30°-40°	594.2	17.0
40°-50°	608.1	17.4
50°-60°	547.5	15.7
60°-70°	429.9	12.3
70°-80°	279.1	8.0
80°-90°	86.3	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°	946.8	27.1
0°-40°	1541.0	44.1
0°-60°	2696.6	77.2
0°-90°	3491.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3491.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1227	1227	1227	1227	1227	
5°	1221	1223	1218	1224	1226	116
15°	1168	1171	1174	1184	1186	329
25°	1062	1070	1081	1099	1102	489
35°	917	928	950	974	980	572
45°	740	758	791	821	827	570
55°	551	576	618	650	657	494
65°	363	390	440	477	486	361
75°	184	220	276	314	323	195
85°	38	70	86	84	84	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1226.7	1226.7	1226.7	1226.7	1226.7
2.5°	1227.8	1227.8	1222.3	1227.8	1228.9
5°	1221.2	1223.4	1217.9	1224.5	1225.6
7.5°	1214.5	1214.5	1211.2	1217.9	1219.0
10°	1202.3	1203.4	1202.3	1210.1	1211.2
12.5°	1186.8	1189.0	1190.1	1197.9	1199.0
15°	1167.9	1171.3	1173.5	1183.5	1185.7
17.5°	1146.9	1150.2	1155.7	1166.8	1169.1
20°	1121.4	1125.8	1132.4	1146.9	1150.2
22.5°	1093.6	1098.1	1109.2	1122.5	1128.0
25°	1061.5	1070.3	1081.4	1099.2	1102.5
27.5°	1029.3	1037.1	1051.5	1070.3	1074.8
30°	991.6	1003.8	1021.5	1040.4	1044.8
32.5°	955.0	967.2	988.3	1008.2	1013.8
35°	917.3	928.4	950.5	973.8	980.5
37.5°	874.0	888.4	912.8	936.1	942.8
40°	828.5	846.3	874.0	898.4	906.2
42.5°	785.3	804.1	831.9	858.5	867.4
45°	739.8	757.6	790.8	820.8	827.4
47.5°	693.2	713.2	748.7	778.6	789.7
50°	646.6	667.7	705.4	736.5	743.1
52.5°	600.1	622.2	662.2	695.4	698.8
55°	551.3	575.7	617.8	650.0	656.6
57.5°	506.9	528.0	573.4	606.7	614.5
60°	458.1	481.4	530.2	561.2	571.2
62.5°	411.5	435.9	486.9	518.0	526.8
65°	362.7	390.4	440.3	476.9	485.8
67.5°	320.5	347.2	400.4	435.9	444.8
70°	271.7	301.7	358.3	394.9	403.7
72.5°	229.6	260.7	317.2	352.7	366.0
75°	184.1	219.6	276.2	313.9	322.8
77.5°	139.8	180.8	238.5	267.3	267.3
80°	99.8	143.1	196.3	209.6	211.8
82.5°	65.4	107.6	145.3	144.2	144.2
85°	37.7	69.9	86.5	84.3	84.3
87.5°	14.4	28.8	31.1	31.1	29.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)