

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: P276318

Luminaire Tested: **24CZ2-35HE-S-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276318  
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-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3498.0 lumens  
Efficiency: N/A  
Efficacy: 144.7 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

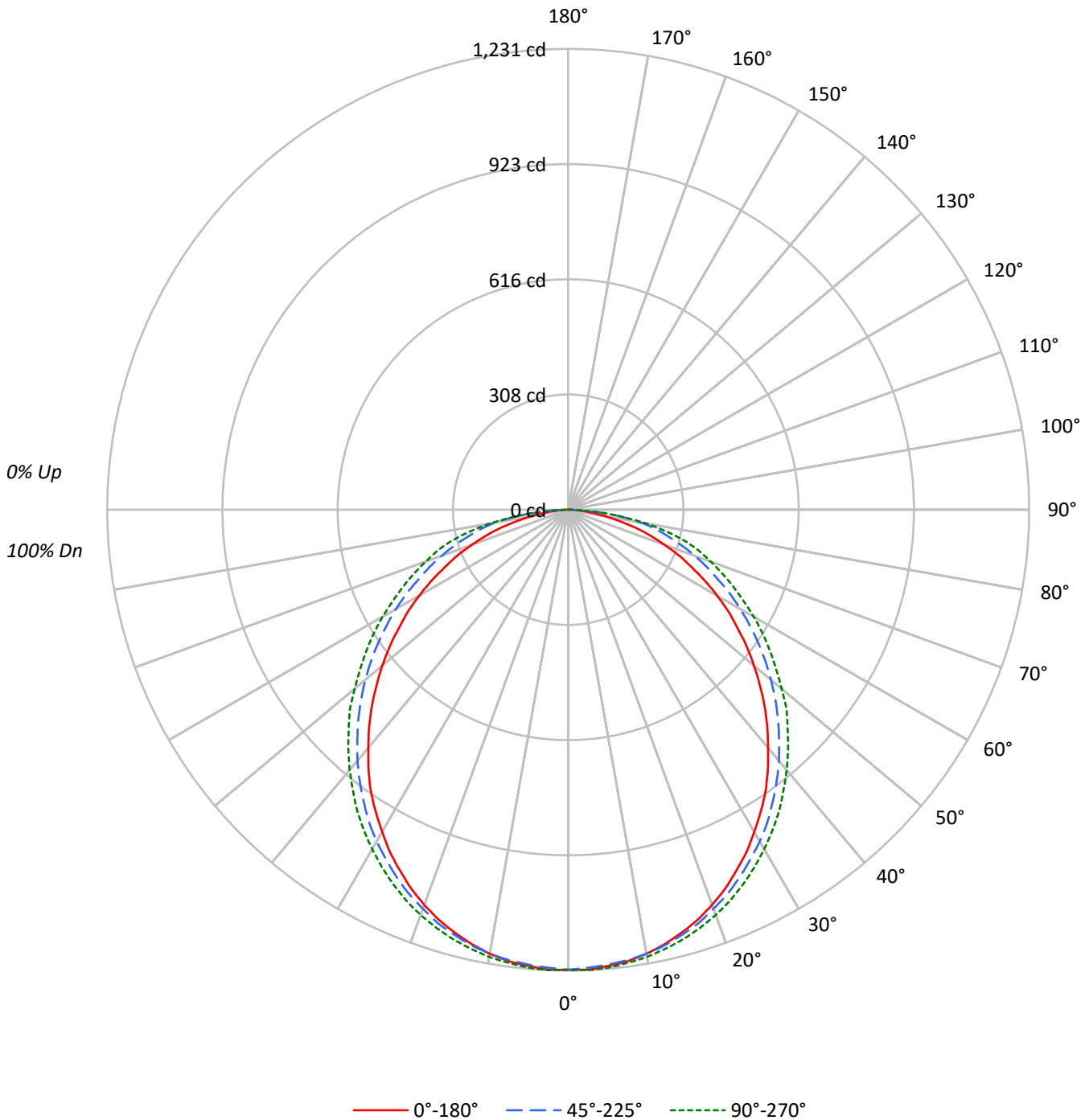
Input Watts (W): 24.18  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1653	1653	1653
5°	1652	1648	1658
10°	1646	1646	1658
15°	1630	1637	1655
20°	1608	1624	1650
25°	1579	1608	1640
30°	1543	1590	1626
35°	1509	1564	1613
40°	1458	1538	1594
45°	1410	1507	1577
50°	1356	1479	1558
55°	1295	1452	1543
60°	1235	1429	1540
65°	1157	1404	1550
70°	1071	1412	1591
75°	959	1438	1681
80°	775	1524	1644
85°	584	1338	1303



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.3	3.3
10°-20°	332.4	9.5
20°-30°	499.7	14.3
30°-40°	595.2	17.0
40°-50°	609.2	17.4
50°-60°	548.4	15.7
60°-70°	430.7	12.3
70°-80°	279.5	8.0
80°-90°	86.5	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°	948.5	27.1
0°-40°	1543.7	44.1
0°-60°	2701.3	77.2
0°-90°	3498.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3498.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1229	1229	1229	1229	1229	
5°	1223	1226	1220	1227	1228	116
15°	1170	1173	1176	1186	1188	330
25°	1063	1072	1083	1101	1104	490
35°	919	930	952	976	982	573
45°	741	759	792	822	829	571
55°	552	577	619	651	658	495
65°	363	391	441	478	487	362
75°	184	220	277	314	323	195
85°	38	70	87	84	84	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1228.9	1228.9	1228.9	1228.9	1228.9
2.5°	1230.0	1230.0	1224.4	1230.0	1231.1
5°	1223.3	1225.5	1220.0	1226.6	1227.8
7.5°	1216.6	1216.6	1213.3	1220.0	1221.1
10°	1204.4	1205.5	1204.4	1212.2	1213.3
12.5°	1188.9	1191.1	1192.2	1200.0	1201.1
15°	1170.0	1173.3	1175.5	1185.5	1187.8
17.5°	1148.9	1152.2	1157.8	1168.9	1171.1
20°	1123.3	1127.8	1134.4	1148.9	1152.2
22.5°	1095.5	1100.0	1111.1	1124.4	1130.0
25°	1063.3	1072.2	1083.3	1101.1	1104.4
27.5°	1031.1	1038.9	1053.3	1072.2	1076.7
30°	993.3	1005.5	1023.3	1042.2	1046.7
32.5°	956.7	968.9	990.0	1010.0	1015.5
35°	918.9	930.0	952.2	975.5	982.2
37.5°	875.5	890.0	914.4	937.8	944.4
40°	830.0	847.8	875.5	900.0	907.8
42.5°	786.7	805.5	833.3	860.0	868.9
45°	741.1	758.9	792.2	822.2	828.9
47.5°	694.4	714.4	750.0	780.0	791.1
50°	647.8	668.9	706.7	737.8	744.4
52.5°	601.1	623.3	663.3	696.7	700.0
55°	552.2	576.7	618.9	651.1	657.8
57.5°	507.8	528.9	574.4	607.8	615.5
60°	458.9	482.2	531.1	562.2	572.2
62.5°	412.2	436.7	487.8	518.9	527.8
65°	363.3	391.1	441.1	477.8	486.7
67.5°	321.1	347.8	401.1	436.7	445.5
70°	272.2	302.2	358.9	395.5	404.4
72.5°	230.0	261.1	317.8	353.3	366.7
75°	184.4	220.0	276.7	314.4	323.3
77.5°	140.0	181.1	238.9	267.8	267.8
80°	100.0	143.3	196.7	210.0	212.2
82.5°	65.6	107.8	145.6	144.4	144.4
85°	37.8	70.0	86.7	84.4	84.4
87.5°	14.4	28.9	31.1	31.1	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)