

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: P260977

Luminaire Tested: **24CZ-LD5-35-S-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260977  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-35-S-UNV-L83050-W2A1-U-3000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3392.0 lumens  
Efficiency: N/A  
Efficacy: 140.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

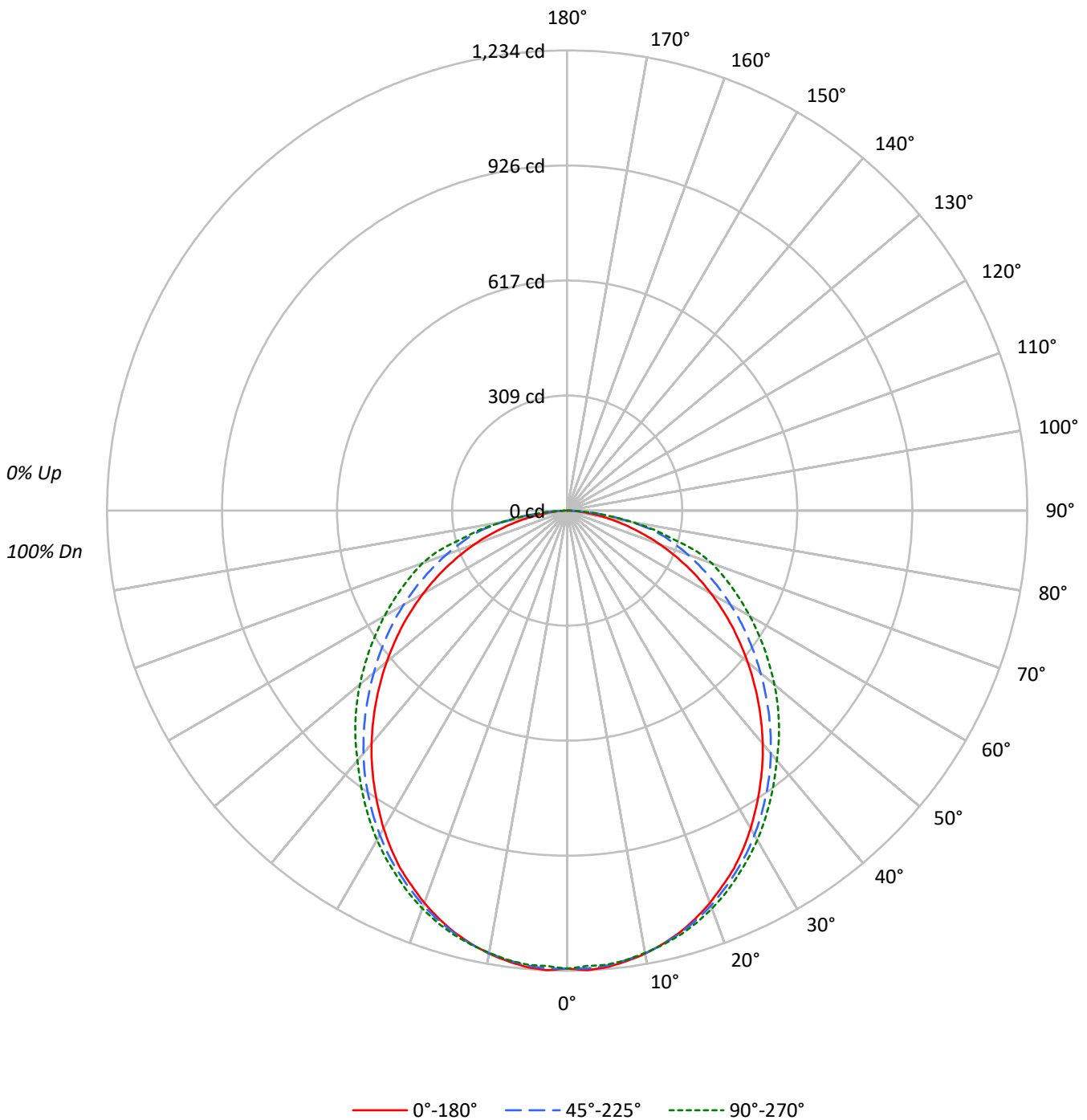
Input Watts (W): 24.13164  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50					50			
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27					27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1652	1652	1652
5°	1660	1654	1651
10°	1648	1647	1645
15°	1630	1634	1640
20°	1603	1614	1626
25°	1572	1589	1605
30°	1529	1561	1585
35°	1481	1528	1559
40°	1433	1493	1536
45°	1379	1454	1529
50°	1323	1418	1519
55°	1266	1387	1514
60°	1200	1364	1522
65°	1128	1347	1552
70°	1039	1354	1625
75°	921	1402	1514
80°	769	1330	1364
85°	574	1062	976



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.1	3.4
10°-20°	330.2	9.7
20°-30°	492.1	14.5
30°-40°	579.2	17.1
40°-50°	588.6	17.4
50°-60°	529.2	15.6
60°-70°	418.1	12.3
70°-80°	265.2	7.8
80°-90°	73.2	2.2
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°	938.4	27.7
0°-40°	1517.6	44.7
0°-60°	2635.5	77.7
0°-90°	3392.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3392.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1229	1219	1225	1222	1222	117
15°	1170	1165	1173	1176	1177	330
25°	1059	1058	1070	1077	1081	487
35°	902	907	930	940	949	564
45°	725	735	764	787	804	559
55°	540	553	591	630	646	482
65°	354	372	423	470	488	351
75°	177	208	270	293	291	189
85°	37	64	69	63	63	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1228.0	1228.0	1228.0	1228.0	1228.0
2.5°	1233.6	1224.6	1229.1	1226.8	1222.3
5°	1229.1	1218.9	1224.6	1222.3	1222.3
7.5°	1218.9	1211.0	1215.6	1214.4	1215.6
10°	1206.5	1198.6	1205.4	1205.4	1204.3
12.5°	1189.6	1182.8	1190.7	1190.7	1191.8
15°	1170.4	1164.8	1172.7	1176.0	1177.2
17.5°	1146.7	1141.1	1151.2	1154.6	1158.0
20°	1119.6	1117.4	1127.5	1130.9	1135.4
22.5°	1089.1	1089.1	1099.3	1103.8	1110.6
25°	1058.7	1057.5	1070.0	1076.7	1081.2
27.5°	1022.6	1023.7	1039.5	1046.3	1051.9
30°	984.2	986.4	1004.5	1012.4	1020.3
32.5°	943.5	948.1	968.4	977.4	985.3
35°	901.8	907.4	930.0	940.2	949.2
37.5°	860.0	867.9	891.6	901.8	911.9
40°	816.0	822.8	849.9	862.3	874.7
42.5°	770.9	779.9	807.0	825.0	839.7
45°	724.6	734.7	764.1	786.7	803.6
47.5°	678.3	691.9	720.1	750.5	765.2
50°	632.0	645.6	677.2	711.0	725.7
52.5°	584.6	598.2	634.3	669.3	685.1
55°	539.5	553.0	591.4	629.8	645.6
57.5°	492.1	506.8	549.7	589.2	605.0
60°	445.8	460.5	506.8	548.5	565.5
62.5°	400.7	416.5	465.0	509.0	525.9
65°	354.4	372.5	423.2	469.5	487.6
67.5°	309.2	329.6	382.6	431.1	450.3
70°	264.1	287.8	344.2	393.9	413.1
72.5°	220.1	246.0	305.9	355.5	365.7
75°	177.2	207.7	269.7	293.4	291.2
77.5°	136.6	170.4	229.1	233.6	240.4
80°	99.3	136.6	171.6	180.6	176.1
82.5°	65.5	102.7	123.0	118.5	117.4
85°	37.2	64.3	68.8	63.2	63.2
87.5°	15.8	26.0	22.6	16.9	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)