

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: P259234

Luminaire Tested: **22CZ-LD5-44-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259234  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-44-UNV-L83050-W2A1-U-3500K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4418.0 lumens  
Efficiency: N/A  
Efficacy: 127.7 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

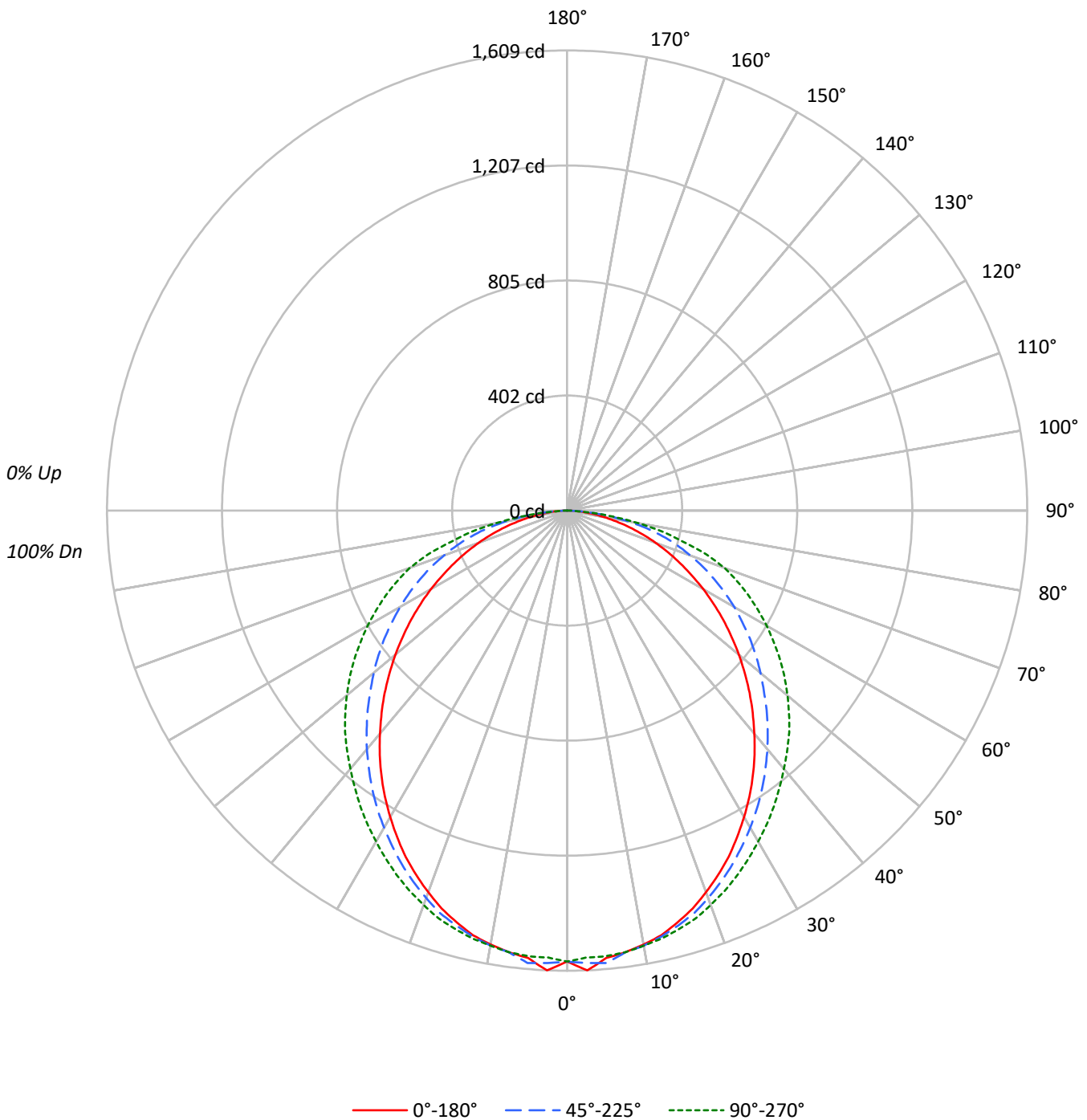
Input Watts (W): 34.596  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33					33			
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	4243	4243	4243
5°	4242	4289	4225
10°	4209	4221	4221
15°	4154	4184	4220
20°	4067	4128	4202
25°	3968	4057	4178
30°	3845	3979	4152
35°	3719	3903	4143
40°	3577	3826	4143
45°	3434	3753	4178
50°	3283	3697	4209
55°	3125	3659	4264
60°	2960	3631	4336
65°	2777	3612	4446
70°	2586	3600	4598
75°	2346	3596	4355
80°	2032	3329	3862
85°	1726	2519	2455



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.6	3.4
10°-20°	423.7	9.6
20°-30°	630.2	14.3
30°-40°	745.4	16.9
40°-50°	766.1	17.3
50°-60°	700.1	15.8
60°-70°	560.0	12.7
70°-80°	351.4	8.0
80°-90°	91.5	2.1
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°	1203.5	27.2
0°-40°	1948.8	44.1
0°-60°	3415.0	77.3
0°-90°	4418.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4418.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1577	1577	1577	1577	1577	
5°	1570	1570	1588	1577	1564	149
15°	1491	1493	1502	1510	1515	420
25°	1336	1345	1366	1390	1407	614
35°	1132	1147	1188	1233	1261	708
45°	902	926	986	1059	1098	696
55°	666	698	780	866	909	596
65°	436	475	567	653	698	433
75°	226	269	346	398	419	240
85°	56	71	82	80	80	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1576.9	1576.9	1576.9	1576.9	1576.9
2.5°	1609.2	1602.7	1583.4	1570.5	1564.0
5°	1570.5	1570.5	1587.7	1576.9	1564.0
7.5°	1557.6	1557.6	1557.6	1589.8	1557.6
10°	1540.4	1542.6	1544.7	1557.6	1544.7
12.5°	1521.1	1521.1	1525.4	1529.7	1531.8
15°	1491.0	1493.1	1501.7	1510.3	1514.6
17.5°	1458.8	1465.2	1476.0	1486.7	1495.3
20°	1420.1	1428.7	1441.6	1458.8	1467.4
22.5°	1379.3	1387.9	1405.1	1424.4	1439.4
25°	1336.3	1344.9	1366.4	1390.0	1407.2
27.5°	1286.9	1297.6	1323.4	1355.6	1372.8
30°	1237.5	1250.4	1280.5	1317.0	1336.3
32.5°	1185.9	1201.0	1235.3	1276.2	1299.8
35°	1132.2	1147.3	1188.1	1233.2	1261.1
37.5°	1076.4	1093.5	1138.7	1190.2	1220.3
40°	1018.3	1037.7	1089.2	1145.1	1179.5
42.5°	960.3	981.8	1037.7	1104.3	1138.7
45°	902.3	926.0	986.1	1059.2	1097.8
47.5°	842.2	870.1	932.4	1014.0	1052.7
50°	784.2	812.1	883.0	966.8	1005.5
52.5°	724.0	756.2	831.4	917.4	958.2
55°	666.0	698.2	779.9	865.8	908.8
57.5°	608.0	640.2	726.2	814.2	857.2
60°	550.0	584.4	674.6	760.5	805.7
62.5°	492.0	528.5	620.9	709.0	751.9
65°	436.1	474.8	567.2	653.1	698.2
67.5°	382.4	423.2	513.5	597.3	642.4
70°	328.7	369.5	457.6	539.3	584.4
72.5°	277.1	318.0	403.9	476.9	511.3
75°	225.6	268.6	345.9	397.5	418.9
77.5°	176.2	219.1	285.7	320.1	343.7
80°	131.1	167.6	214.8	240.6	249.2
82.5°	90.2	120.3	150.4	156.8	161.1
85°	55.9	70.9	81.6	79.5	79.5
87.5°	25.8	27.9	23.6	17.2	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)