

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: P260814

Luminaire Tested: **24CZ-LD5-40SE-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260814  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-40SE-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4112.0 lumens  
Efficiency: N/A  
Efficacy: 132.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

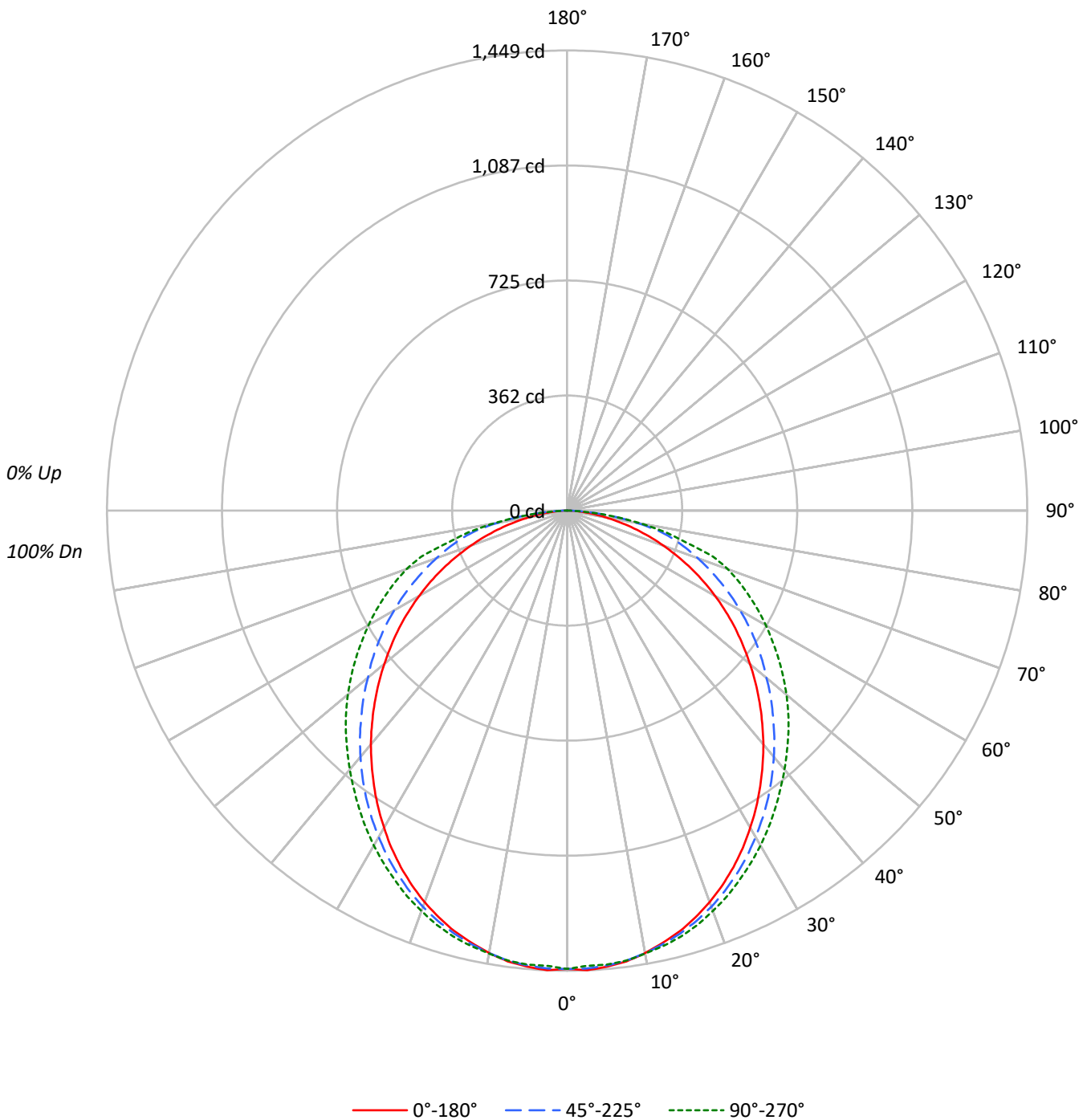
Input Watts (W): 30.969  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

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

	0°	45°	90°
0°	1942	1942	1942
5°	1947	1942	1938
10°	1933	1933	1935
15°	1910	1920	1934
20°	1879	1901	1921
25°	1839	1875	1906
30°	1791	1844	1892
35°	1741	1813	1878
40°	1689	1778	1870
45°	1631	1744	1875
50°	1574	1715	1886
55°	1516	1704	1906
60°	1447	1693	1944
65°	1372	1694	2008
70°	1268	1723	2116
75°	1134	1800	2013
80°	949	1723	1843
85°	718	1326	1261



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.4	3.3
10°-20°	388.1	9.4
20°-30°	580.2	14.1
30°-40°	688.3	16.7
40°-50°	708.5	17.2
50°-60°	649.9	15.8
60°-70°	525.5	12.8
70°-80°	341.0	8.3
80°-90°	94.0	2.3
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°	1104.7	26.9
0°-40°	1793.0	43.6
0°-60°	3151.4	76.6
0°-90°	4112.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4112.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1443	1443	1443	1443	1443	
5°	1442	1432	1438	1436	1435	137
15°	1371	1366	1378	1384	1388	386
25°	1239	1240	1263	1274	1284	570
35°	1060	1069	1104	1128	1143	663
45°	857	872	916	960	986	662
55°	646	666	726	786	812	577
65°	431	456	532	603	631	426
75°	218	259	346	387	387	232
85°	46	79	86	83	82	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1443.1	1443.1	1443.1	1443.1	1443.1
2.5°	1448.7	1437.5	1443.1	1441.7	1434.7
5°	1441.7	1431.8	1437.5	1436.1	1434.7
7.5°	1431.8	1422.0	1429.0	1427.6	1429.0
10°	1414.9	1406.5	1414.9	1416.3	1416.3
12.5°	1393.8	1386.8	1398.0	1400.9	1403.7
15°	1371.3	1365.7	1378.3	1384.0	1388.2
17.5°	1343.1	1338.9	1354.4	1361.4	1367.1
20°	1312.2	1310.8	1327.7	1334.7	1341.7
22.5°	1277.0	1277.0	1296.7	1305.1	1315.0
25°	1239.0	1240.4	1262.9	1274.2	1284.0
27.5°	1198.1	1199.5	1226.3	1240.4	1251.6
30°	1153.1	1158.7	1186.9	1205.2	1217.8
32.5°	1108.0	1115.1	1146.0	1167.1	1181.2
35°	1060.1	1068.6	1103.8	1127.7	1143.2
37.5°	1010.9	1020.7	1058.7	1085.5	1103.8
40°	961.6	972.9	1012.3	1043.3	1064.4
42.5°	909.5	922.2	965.8	1002.4	1025.0
45°	857.4	871.5	916.5	960.2	985.5
47.5°	805.3	822.2	870.1	918.0	944.7
50°	751.8	768.7	819.4	874.3	901.1
52.5°	698.3	718.0	774.3	830.7	857.4
55°	646.2	665.9	726.5	785.6	812.4
57.5°	592.7	612.4	678.6	740.6	767.3
60°	537.8	560.3	629.3	692.7	722.3
62.5°	484.3	508.3	581.5	649.0	677.2
65°	430.8	456.2	532.2	602.6	630.7
67.5°	375.9	405.5	484.3	556.1	585.7
70°	322.4	354.8	437.9	509.7	537.8
72.5°	270.3	305.5	391.4	464.6	481.5
75°	218.2	259.1	346.3	387.2	387.2
77.5°	168.9	214.0	295.7	311.1	319.6
80°	122.5	171.8	222.4	240.8	237.9
82.5°	81.7	130.9	159.1	159.1	154.9
85°	46.5	78.8	85.9	83.1	81.7
87.5°	19.7	29.6	26.8	21.1	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)