

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: P260821

Luminaire Tested: **24CZ-LD5-45SE-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260821  
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-LD5-45SE-UNV-L82765-W2A1-U-3500K  
Description: CRUZE 2x4 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: 4426.0 lumens  
Efficiency: N/A  
Efficacy: 125.9 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

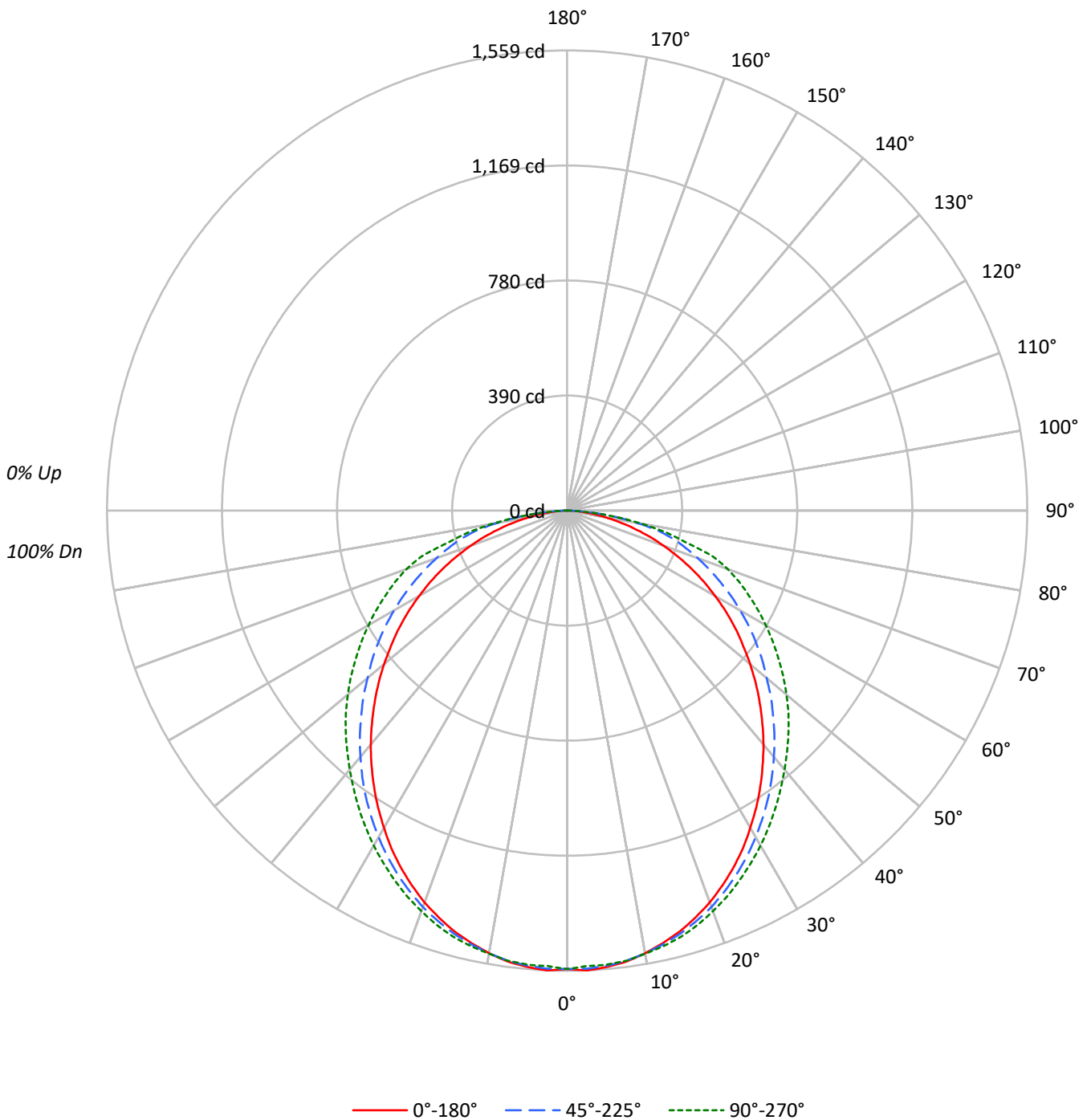
Input Watts (W): 35.154  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	2090	2090	2090
5°	2096	2090	2086
10°	2081	2081	2083
15°	2056	2067	2081
20°	2022	2046	2068
25°	1980	2018	2052
30°	1928	1985	2037
35°	1874	1952	2021
40°	1818	1914	2012
45°	1756	1877	2019
50°	1694	1846	2030
55°	1632	1834	2051
60°	1558	1823	2092
65°	1476	1824	2161
70°	1365	1854	2277
75°	1221	1938	2166
80°	1021	1855	1984
85°	772	1426	1357



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.8	3.3
10°-20°	417.8	9.4
20°-30°	624.5	14.1
30°-40°	740.9	16.7
40°-50°	762.6	17.2
50°-60°	699.6	15.8
60°-70°	565.6	12.8
70°-80°	367.1	8.3
80°-90°	101.2	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°	1189.1	26.9
0°-40°	1930.0	43.6
0°-60°	3392.1	76.6
0°-90°	4426.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4426.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1553	1553	1553	1553	1553	
5°	1552	1541	1547	1546	1544	147
15°	1476	1470	1484	1490	1494	416
25°	1334	1335	1359	1371	1382	614
35°	1141	1150	1188	1214	1230	714
45°	923	938	986	1034	1061	712
55°	696	717	782	846	874	621
65°	464	491	573	649	679	458
75°	235	279	373	417	417	250
85°	50	85	92	89	88	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1553.3	1553.3	1553.3	1553.3	1553.3
2.5°	1559.4	1547.2	1553.3	1551.8	1544.2
5°	1551.8	1541.2	1547.2	1545.7	1544.2
7.5°	1541.2	1530.6	1538.1	1536.6	1538.1
10°	1523.0	1513.9	1523.0	1524.5	1524.5
12.5°	1500.3	1492.7	1504.8	1507.8	1510.9
15°	1476.0	1469.9	1483.6	1489.6	1494.2
17.5°	1445.7	1441.2	1457.8	1465.4	1471.5
20°	1412.4	1410.8	1429.0	1436.6	1444.2
22.5°	1374.5	1374.5	1395.7	1404.8	1415.4
25°	1333.6	1335.1	1359.3	1371.4	1382.1
27.5°	1289.6	1291.1	1319.9	1335.1	1347.2
30°	1241.1	1247.2	1277.5	1297.2	1310.8
32.5°	1192.6	1200.2	1233.5	1256.3	1271.4
35°	1141.1	1150.2	1188.1	1213.8	1230.5
37.5°	1088.1	1098.7	1139.6	1168.4	1188.1
40°	1035.0	1047.1	1089.6	1122.9	1145.7
42.5°	979.0	992.6	1039.6	1079.0	1103.2
45°	922.9	938.0	986.5	1033.5	1060.8
47.5°	866.8	885.0	936.5	988.0	1016.8
50°	809.2	827.4	882.0	941.1	969.9
52.5°	751.6	772.9	833.5	894.1	922.9
55°	695.6	716.8	782.0	845.6	874.4
57.5°	638.0	659.2	730.4	797.1	825.9
60°	578.9	603.1	677.4	745.6	777.4
62.5°	521.3	547.1	625.9	698.6	728.9
65°	463.7	491.0	572.8	648.6	678.9
67.5°	404.6	436.4	521.3	598.6	630.4
70°	347.0	381.9	471.3	548.6	578.9
72.5°	291.0	328.8	421.3	500.1	518.3
75°	234.9	278.8	372.8	416.7	416.7
77.5°	181.8	230.3	318.2	334.9	344.0
80°	131.8	184.9	239.4	259.1	256.1
82.5°	87.9	140.9	171.2	171.2	166.7
85°	50.0	84.9	92.4	89.4	87.9
87.5°	21.2	31.8	28.8	22.7	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)