

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: P260823

Luminaire Tested: **24CZ-LD5-45SE-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260823
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-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: 4604.0 lumens
Efficiency: N/A
Efficacy: 129.3 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

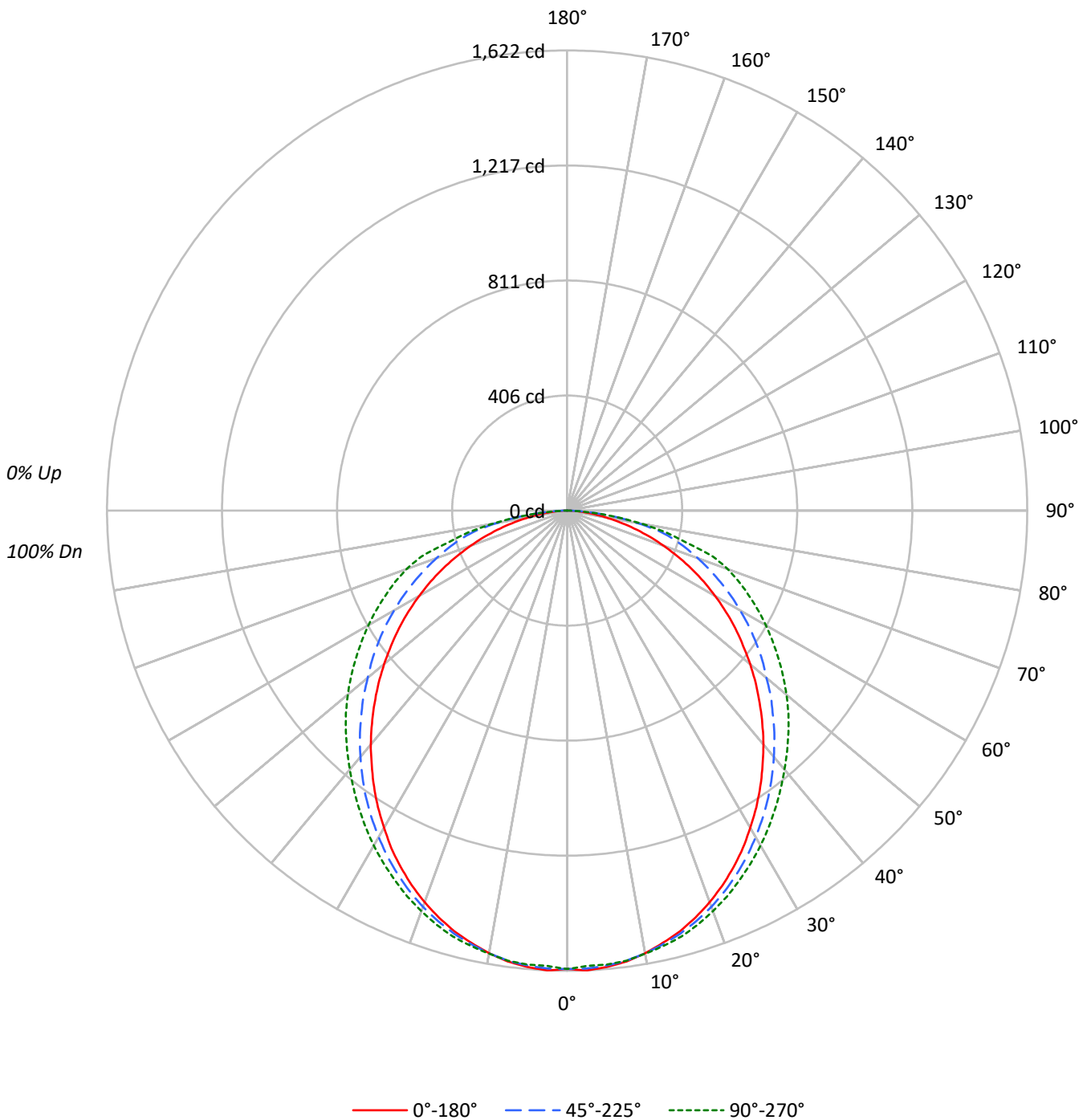
Input Watts (W): 35.619
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2174	2174	2174
5°	2180	2174	2170
10°	2164	2164	2167
15°	2139	2150	2165
20°	2104	2128	2151
25°	2059	2099	2134
30°	2006	2065	2118
35°	1950	2030	2102
40°	1891	1991	2093
45°	1827	1953	2100
50°	1762	1920	2112
55°	1697	1908	2134
60°	1621	1896	2176
65°	1536	1897	2248
70°	1420	1928	2369
75°	1270	2016	2254
80°	1062	1930	2064
85°	803	1485	1411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.7	3.3
10°-20°	434.6	9.4
20°-30°	649.6	14.1
30°-40°	770.7	16.7
40°-50°	793.2	17.2
50°-60°	727.7	15.8
60°-70°	588.4	12.8
70°-80°	381.8	8.3
80°-90°	105.3	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°	1236.9	26.9
0°-40°	2007.6	43.6
0°-60°	3528.5	76.6
0°-90°	4604.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4604.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1616	1616	1616	1616	1616	
5°	1614	1603	1610	1608	1606	153
15°	1535	1529	1543	1550	1554	433
25°	1387	1389	1414	1427	1438	639
35°	1187	1196	1236	1263	1280	742
45°	960	976	1026	1075	1103	741
55°	724	746	813	880	910	646
65°	482	511	596	675	706	477
75°	244	290	388	434	434	260
85°	52	88	96	93	91	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1615.8	1615.8	1615.8	1615.8	1615.8
2.5°	1622.1	1609.5	1615.8	1614.2	1606.3
5°	1614.2	1603.2	1609.5	1607.9	1606.3
7.5°	1603.2	1592.1	1600.0	1598.4	1600.0
10°	1584.2	1574.8	1584.2	1585.8	1585.8
12.5°	1560.6	1552.7	1565.3	1568.5	1571.6
15°	1535.4	1529.1	1543.3	1549.6	1554.3
17.5°	1503.8	1499.1	1516.5	1524.3	1530.6
20°	1469.2	1467.6	1486.5	1494.4	1502.3
22.5°	1429.8	1429.8	1451.8	1461.3	1472.3
25°	1387.2	1388.8	1414.0	1426.6	1437.6
27.5°	1341.5	1343.1	1373.0	1388.8	1401.4
30°	1291.0	1297.3	1328.9	1349.4	1363.5
32.5°	1240.6	1248.5	1283.2	1306.8	1322.6
35°	1187.0	1196.5	1235.9	1262.7	1280.0
37.5°	1131.8	1142.9	1185.4	1215.4	1235.9
40°	1076.7	1089.3	1133.4	1168.1	1191.7
42.5°	1018.3	1032.5	1081.4	1122.4	1147.6
45°	960.0	975.8	1026.2	1075.1	1103.4
47.5°	901.7	920.6	974.2	1027.8	1057.7
50°	841.8	860.7	917.4	978.9	1008.9
52.5°	781.9	803.9	867.0	930.0	960.0
55°	723.5	745.6	813.4	879.6	909.6
57.5°	663.6	685.7	759.8	829.2	859.1
60°	602.2	627.4	704.6	775.6	808.7
62.5°	542.3	569.1	651.0	726.7	758.2
65°	482.4	510.7	595.9	674.7	706.2
67.5°	420.9	454.0	542.3	622.7	655.8
70°	361.0	397.2	490.2	570.6	602.2
72.5°	302.7	342.1	438.2	520.2	539.1
75°	244.3	290.0	387.8	433.5	433.5
77.5°	189.2	239.6	331.0	348.4	357.8
80°	137.1	192.3	249.1	269.6	266.4
82.5°	91.4	146.6	178.1	178.1	173.4
85°	52.0	88.3	96.2	93.0	91.4
87.5°	22.1	33.1	30.0	23.6	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)