

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: P260820

Luminaire Tested: **24CZ-LD5-45SE-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260820
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-3000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (168) 80 CRI LEDS TUNED AT 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4279.0 lumens
Efficiency: N/A
Efficacy: 123.4 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

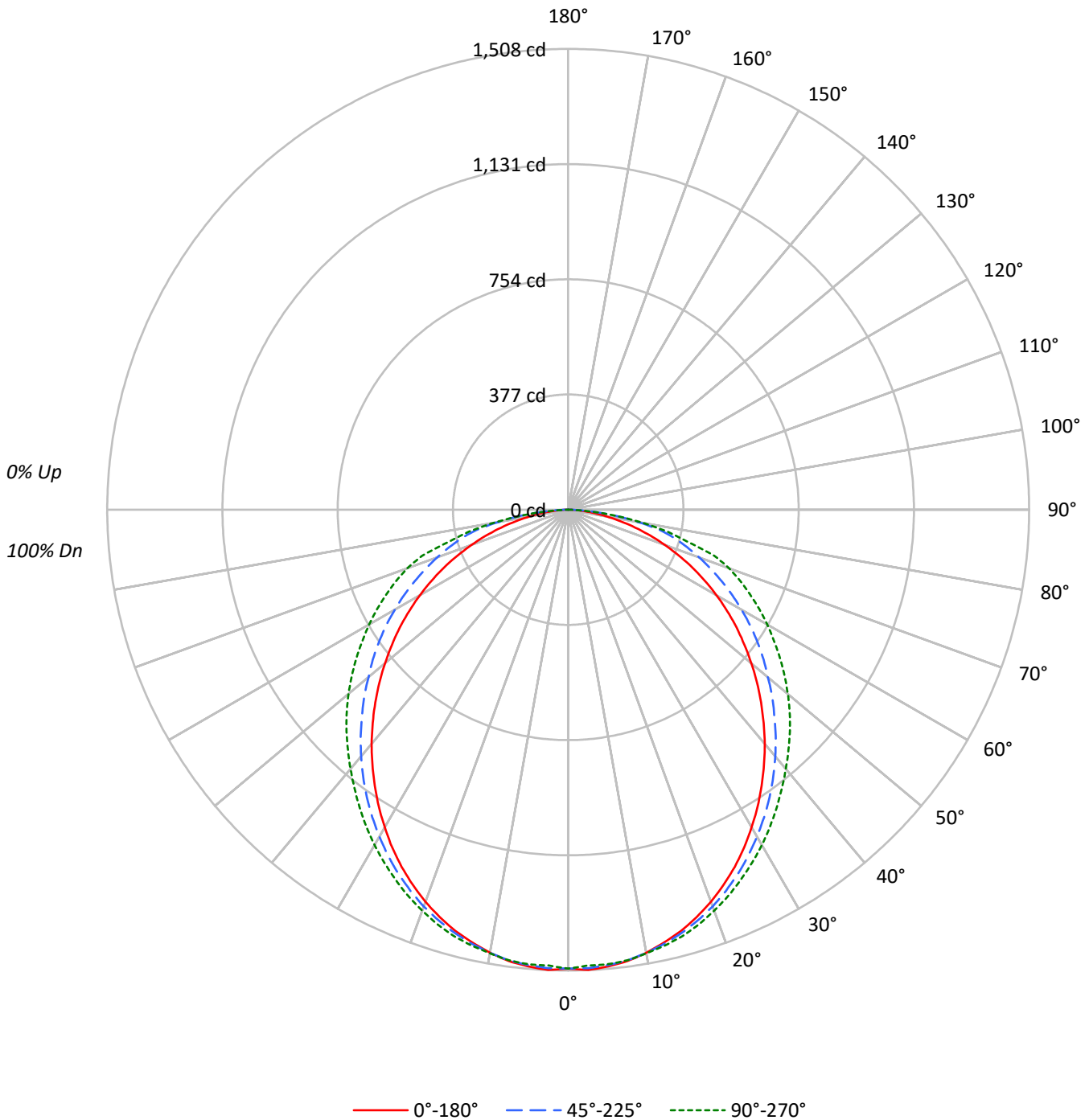
Input Watts (W): 34.689
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2021	2021	2021
5°	2026	2020	2016
10°	2012	2012	2014
15°	1988	1998	2012
20°	1955	1978	1999
25°	1914	1951	1984
30°	1864	1919	1969
35°	1812	1887	1954
40°	1757	1850	1945
45°	1698	1815	1952
50°	1638	1785	1963
55°	1578	1773	1983
60°	1506	1762	2023
65°	1427	1763	2090
70°	1320	1792	2202
75°	1181	1874	2095
80°	988	1794	1918
85°	746	1380	1312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.9	3.3
10°-20°	403.9	9.4
20°-30°	603.8	14.1
30°-40°	716.3	16.7
40°-50°	737.2	17.2
50°-60°	676.3	15.8
60°-70°	546.8	12.8
70°-80°	354.9	8.3
80°-90°	97.9	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°	1149.6	26.9
0°-40°	1865.9	43.6
0°-60°	3279.4	76.6
0°-90°	4279.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4279.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1502	1502	1502	1502	1502	
5°	1500	1490	1496	1494	1493	142
15°	1427	1421	1434	1440	1445	402
25°	1289	1291	1314	1326	1336	593
35°	1103	1112	1149	1174	1190	690
45°	892	907	954	999	1026	689
55°	672	693	756	818	845	601
65°	448	475	554	627	656	443
75°	227	270	360	403	403	241
85°	48	82	89	86	85	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1501.7	1501.7	1501.7	1501.7	1501.7
2.5°	1507.6	1495.8	1501.7	1500.2	1492.9
5°	1500.2	1490.0	1495.8	1494.4	1492.9
7.5°	1490.0	1479.7	1487.1	1485.6	1487.1
10°	1472.4	1463.6	1472.4	1473.9	1473.9
12.5°	1450.4	1443.1	1454.8	1457.8	1460.7
15°	1427.0	1421.1	1434.3	1440.2	1444.6
17.5°	1397.7	1393.3	1409.4	1416.7	1422.6
20°	1365.5	1364.0	1381.6	1388.9	1396.2
22.5°	1328.8	1328.8	1349.3	1358.1	1368.4
25°	1289.3	1290.7	1314.2	1325.9	1336.2
27.5°	1246.8	1248.2	1276.1	1290.7	1302.5
30°	1199.9	1205.8	1235.1	1254.1	1267.3
32.5°	1153.0	1160.3	1192.6	1214.6	1229.2
35°	1103.2	1112.0	1148.6	1173.5	1189.6
37.5°	1051.9	1062.2	1101.7	1129.6	1148.6
40°	1000.6	1012.4	1053.4	1085.6	1107.6
42.5°	946.4	959.6	1005.0	1043.1	1066.6
45°	892.2	906.9	953.8	999.2	1025.6
47.5°	838.0	855.6	905.4	955.2	983.1
50°	782.4	799.9	852.7	909.8	937.7
52.5°	726.7	747.2	805.8	864.4	892.2
55°	672.5	693.0	756.0	817.5	845.4
57.5°	616.8	637.3	706.2	770.6	798.5
60°	559.7	583.1	654.9	720.8	751.6
62.5°	504.0	528.9	605.1	675.4	704.7
65°	448.3	474.7	553.8	627.1	656.4
67.5°	391.2	421.9	504.0	578.7	609.5
70°	335.5	369.2	455.6	530.4	559.7
72.5°	281.3	317.9	407.3	483.5	501.1
75°	227.1	269.6	360.4	402.9	402.9
77.5°	175.8	222.7	307.7	323.8	332.6
80°	127.5	178.7	231.5	250.5	247.6
82.5°	85.0	136.3	165.6	165.6	161.2
85°	48.3	82.0	89.4	86.4	85.0
87.5°	20.5	30.8	27.8	22.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)