

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: P276162

Luminaire Tested: **24CZ2-45-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276162  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45-UNV-L82765-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4279.7 lumens  
Efficiency: N/A  
Efficacy: 121.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

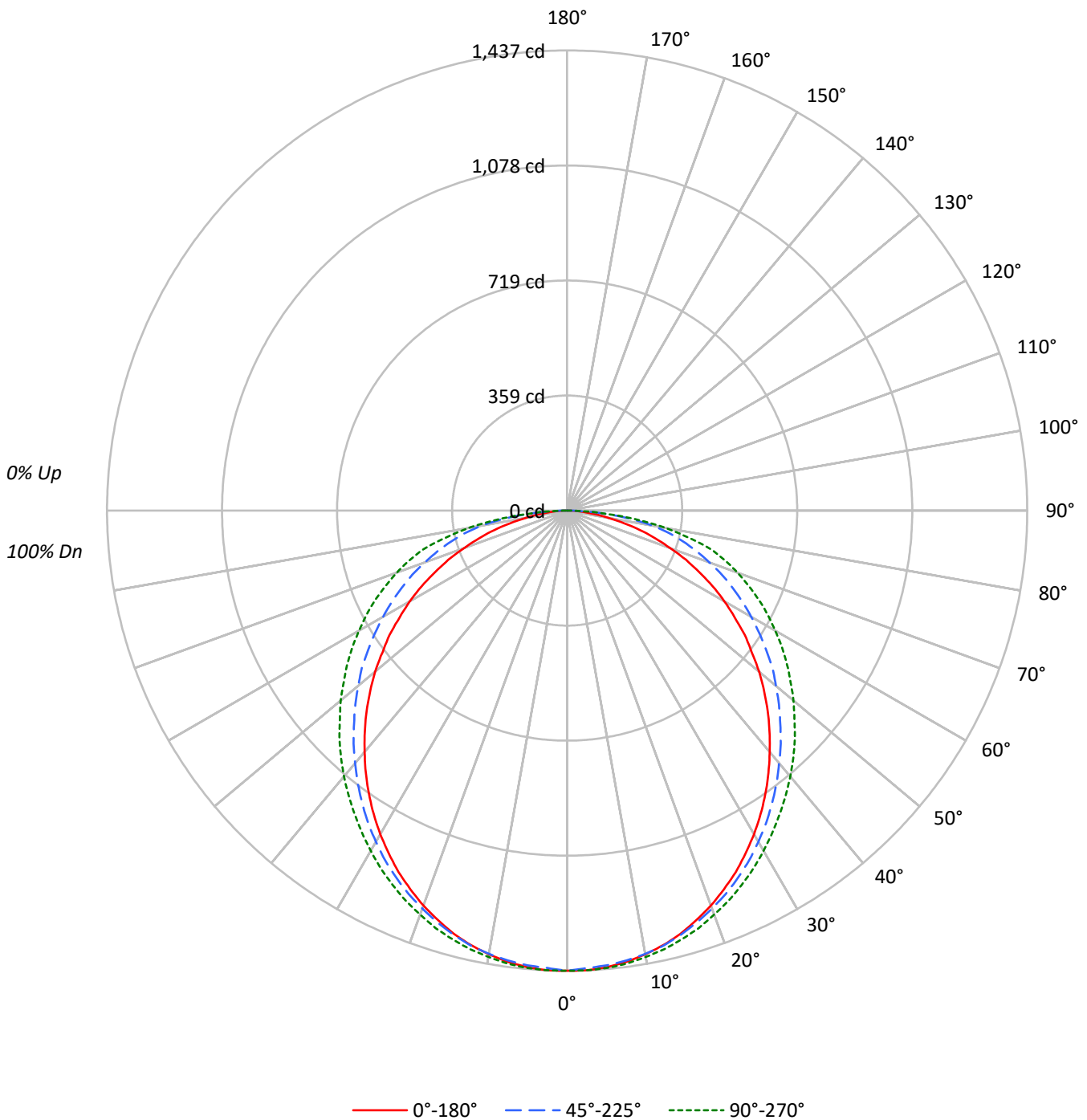
Input Watts (W): 35.34  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1933	1933	1933
5°	1933	1925	1937
10°	1922	1920	1934
15°	1906	1910	1930
20°	1879	1894	1922
25°	1849	1877	1915
30°	1813	1855	1906
35°	1774	1832	1900
40°	1728	1809	1904
45°	1685	1791	1913
50°	1638	1782	1931
55°	1588	1779	1967
60°	1526	1787	2018
65°	1446	1814	2105
70°	1343	1860	2225
75°	1225	1953	2413
80°	1007	2103	2413
85°	772	1941	2073



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.9	3.2
10°-20°	388.0	9.1
20°-30°	583.8	13.6
30°-40°	699.7	16.3
40°-50°	729.1	17.0
50°-60°	678.4	15.9
60°-70°	558.7	13.1
70°-80°	380.5	8.9
80°-90°	125.6	2.9
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°	1107.7	25.9
0°-40°	1807.4	42.2
0°-60°	3214.9	75.1
0°-90°	4279.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4279.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1437	1437	1437	1437	1437	
5°	1431	1431	1426	1433	1434	136
15°	1368	1370	1371	1384	1386	385
25°	1246	1251	1264	1286	1290	573
35°	1080	1093	1116	1146	1157	675
45°	886	904	941	988	1006	683
55°	677	700	758	818	838	603
65°	454	493	570	637	661	451
75°	236	288	376	443	464	249
85°	50	97	126	134	134	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1436.9	1436.9	1436.9	1436.9	1436.9
2.5°	1436.9	1436.9	1429.8	1436.9	1436.9
5°	1431.2	1431.2	1425.5	1432.6	1434.0
7.5°	1421.2	1422.6	1416.9	1425.5	1426.9
10°	1406.9	1408.3	1405.5	1414.0	1415.5
12.5°	1389.8	1391.2	1391.2	1401.2	1402.6
15°	1368.3	1369.8	1371.2	1384.0	1385.5
17.5°	1341.2	1345.5	1348.3	1364.1	1366.9
20°	1312.6	1316.9	1322.6	1339.8	1342.6
22.5°	1279.8	1285.5	1295.5	1314.1	1318.3
25°	1245.5	1251.2	1264.1	1285.5	1289.8
27.5°	1206.9	1215.5	1231.2	1254.1	1259.8
30°	1166.9	1175.5	1194.1	1218.4	1226.9
32.5°	1124.1	1135.5	1156.9	1184.1	1192.7
35°	1079.8	1092.7	1115.5	1145.5	1156.9
37.5°	1032.7	1047.0	1074.1	1107.0	1121.2
40°	984.1	1001.3	1029.8	1068.4	1084.1
42.5°	935.6	951.3	987.0	1028.4	1045.5
45°	885.6	904.1	941.3	988.4	1005.5
47.5°	834.1	852.7	897.0	947.0	962.7
50°	782.7	801.3	851.3	904.1	922.7
52.5°	727.0	751.3	808.4	861.3	879.8
55°	677.0	699.9	758.4	818.4	838.4
57.5°	619.9	647.0	711.3	774.2	795.6
60°	567.0	595.6	664.2	728.4	749.9
62.5°	512.8	544.2	617.0	682.7	707.0
65°	454.2	492.8	569.9	637.0	661.3
67.5°	401.4	441.4	522.8	591.3	612.8
70°	341.4	389.9	472.8	541.3	565.6
72.5°	290.0	338.5	425.6	492.8	517.1
75°	235.7	288.5	375.6	442.8	464.2
77.5°	181.4	240.0	327.1	378.5	385.6
80°	130.0	191.4	271.4	301.4	311.4
82.5°	91.4	147.1	200.0	220.0	225.7
85°	50.0	97.1	125.7	134.3	134.3
87.5°	21.4	41.4	50.0	51.4	52.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)