

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: P276940

Luminaire Tested: **24CZ2-60HE-RDP-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276940  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60HE-RDP-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3898.9 lumens  
Efficiency: N/A  
Efficacy: 86.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

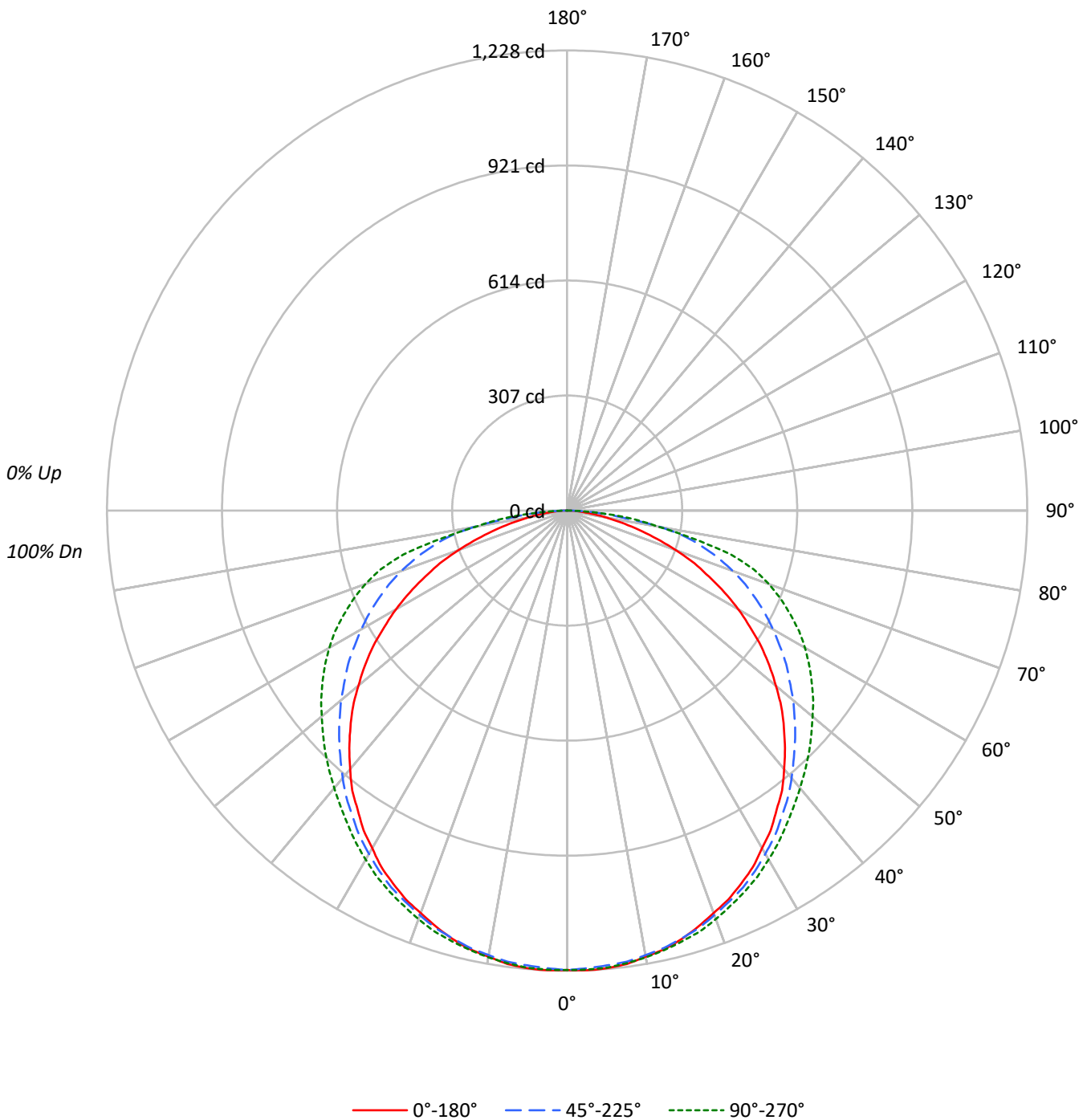
Input Watts (W): 45.105  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1650	1650	1650
5°	1656	1646	1653
10°	1651	1646	1654
15°	1649	1646	1657
20°	1636	1645	1661
25°	1631	1648	1665
30°	1616	1643	1671
35°	1601	1639	1677
40°	1583	1637	1698
45°	1556	1638	1737
50°	1522	1648	1789
55°	1483	1674	1869
60°	1421	1707	1972
65°	1330	1767	2093
70°	1210	1849	2252
75°	1026	1951	2352
80°	809	1963	1903
85°	597	1493	1672



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.3	3.0
10°-20°	334.7	8.6
20°-30°	511.9	13.1
30°-40°	625.7	16.0
40°-50°	666.9	17.1
50°-60°	637.7	16.4
60°-70°	540.2	13.9
70°-80°	363.0	9.3
80°-90°	102.4	2.6
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°	962.9	24.7
0°-40°	1588.7	40.7
0°-60°	2893.2	74.2
0°-90°	3898.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3898.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1226	1226	1226	1226	1226	
5°	1226	1224	1218	1224	1224	116
15°	1184	1184	1182	1191	1189	334
25°	1098	1102	1110	1120	1122	506
35°	975	982	998	1017	1021	611
45°	818	832	861	897	913	631
55°	632	656	714	770	797	563
65°	418	460	555	628	658	415
75°	197	269	375	439	452	211
85°	39	79	97	104	108	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1226.1	1226.1	1226.1	1226.1	1226.1
2.5°	1228.0	1228.0	1222.2	1226.1	1226.1
5°	1226.1	1224.2	1218.4	1224.2	1224.2
7.5°	1220.3	1218.4	1214.5	1220.3	1218.4
10°	1208.7	1208.7	1204.8	1210.6	1210.6
12.5°	1199.0	1197.1	1195.2	1202.9	1201.0
15°	1183.5	1183.5	1181.6	1191.3	1189.4
17.5°	1164.2	1166.1	1168.1	1175.8	1177.7
20°	1142.9	1146.8	1148.7	1160.3	1160.3
22.5°	1123.6	1125.5	1129.4	1141.0	1141.0
25°	1098.5	1102.3	1110.1	1119.7	1121.7
27.5°	1073.3	1075.3	1084.9	1098.5	1100.4
30°	1040.4	1046.2	1057.8	1073.3	1075.3
32.5°	1011.4	1017.2	1030.8	1046.2	1050.1
35°	974.7	982.4	997.9	1017.2	1021.1
37.5°	941.8	947.6	967.0	988.2	994.0
40°	901.2	912.8	932.1	957.3	967.0
42.5°	860.6	872.2	895.4	928.3	939.9
45°	818.0	831.6	860.6	897.3	912.8
47.5°	775.5	791.0	823.8	866.4	883.8
50°	727.1	746.5	787.1	835.4	854.8
52.5°	680.7	703.9	748.4	802.6	827.7
55°	632.4	655.6	713.6	769.7	796.8
57.5°	578.2	609.2	673.0	736.8	765.8
60°	528.0	557.0	634.3	703.9	732.9
62.5°	473.8	512.5	595.6	669.1	698.1
65°	417.7	460.3	555.0	628.5	657.5
67.5°	367.4	413.9	514.4	587.9	616.9
70°	307.5	365.5	469.9	543.4	572.4
72.5°	251.4	315.2	423.5	495.1	522.2
75°	197.3	268.8	375.2	439.0	452.5
77.5°	147.0	222.4	324.9	352.0	342.3
80°	104.4	177.9	253.3	239.8	245.6
82.5°	67.7	135.4	156.6	177.9	183.7
85°	38.7	79.3	96.7	104.4	108.3
87.5°	17.4	29.0	38.7	38.7	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)