

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: P277002

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277002  
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: 24CZ2-45-RDP-UNV-L82765-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2878.4 lumens  
Efficiency: N/A  
Efficacy: 81.4 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

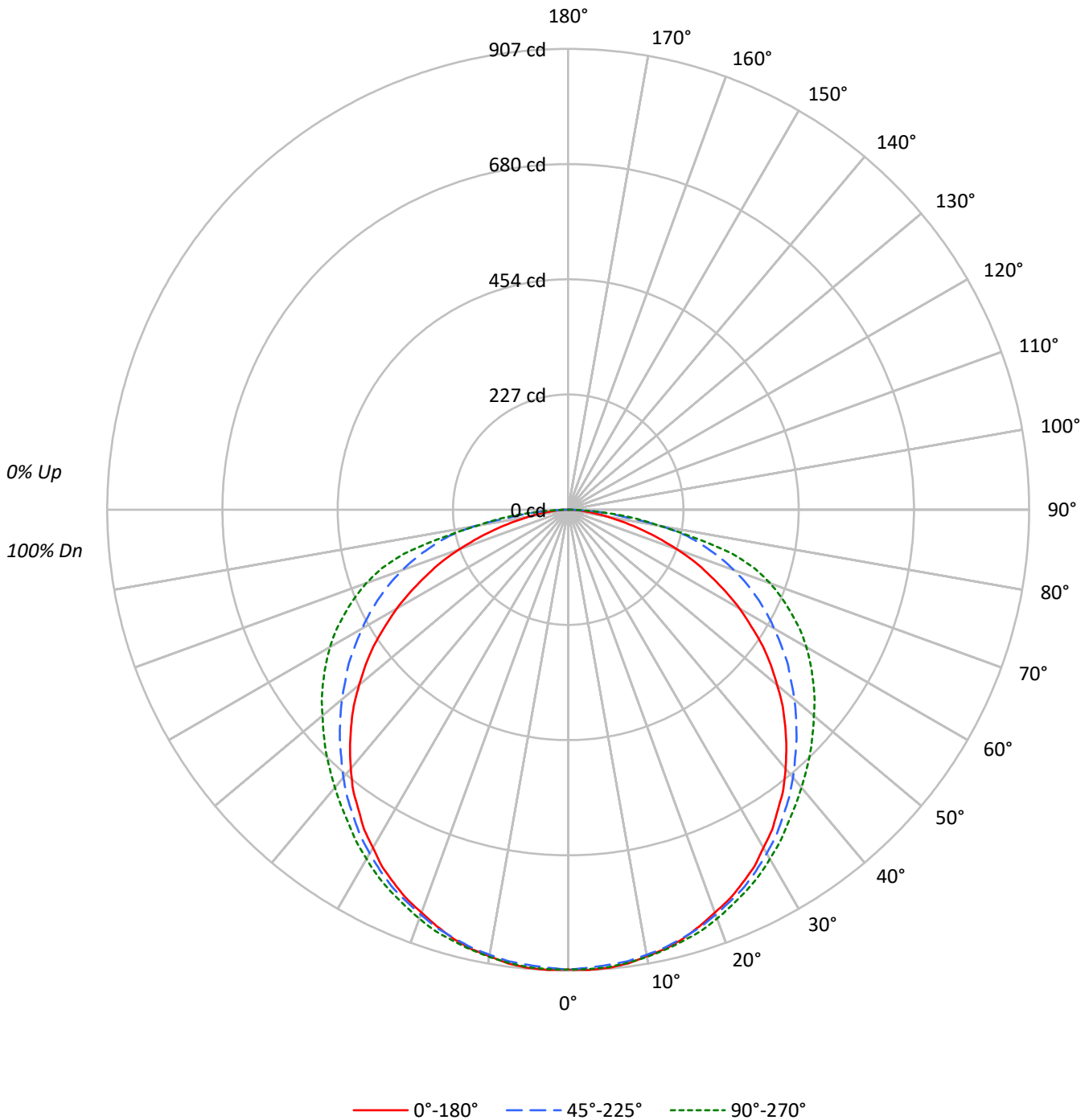
Input Watts (W): 35.34  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82					82			
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67					67			
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35					35			
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27					27			
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

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

	0°	45°	90°
0°	1218	1218	1218
5°	1223	1215	1221
10°	1219	1215	1221
15°	1217	1215	1223
20°	1208	1214	1227
25°	1204	1217	1229
30°	1193	1213	1233
35°	1182	1210	1238
40°	1169	1209	1254
45°	1149	1209	1282
50°	1124	1216	1321
55°	1095	1236	1380
60°	1049	1260	1456
65°	982	1305	1545
70°	893	1365	1662
75°	757	1440	1737
80°	597	1449	1405
85°	442	1102	1235



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.9	3.0
10°-20°	247.1	8.6
20°-30°	377.9	13.1
30°-40°	462.0	16.0
40°-50°	492.4	17.1
50°-60°	470.8	16.4
60°-70°	398.8	13.9
70°-80°	268.0	9.3
80°-90°	75.6	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°	710.9	24.7
0°-40°	1172.8	40.7
0°-60°	2136.0	74.2
0°-90°	2878.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2878.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	905	904	900	904	904	86
15°	874	874	872	880	878	246
25°	811	814	820	827	828	374
35°	720	725	737	751	754	451
45°	604	614	635	662	674	466
55°	467	484	527	568	588	416
65°	308	340	410	464	485	306
75°	146	198	277	324	334	156
85°	29	58	71	77	80	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	905.2	905.2	905.2	905.2	905.2
2.5°	906.6	906.6	902.3	905.2	905.2
5°	905.2	903.7	899.5	903.7	903.7
7.5°	900.9	899.5	896.6	900.9	899.5
10°	892.3	892.3	889.5	893.7	893.7
12.5°	885.2	883.7	882.3	888.0	886.6
15°	873.8	873.8	872.3	879.5	878.0
17.5°	859.5	860.9	862.3	868.0	869.5
20°	843.8	846.6	848.1	856.6	856.6
22.5°	829.5	830.9	833.8	842.3	842.3
25°	810.9	813.8	819.5	826.6	828.1
27.5°	792.4	793.8	800.9	810.9	812.4
30°	768.1	772.4	781.0	792.4	793.8
32.5°	746.7	751.0	761.0	772.4	775.2
35°	719.6	725.3	736.7	751.0	753.8
37.5°	695.3	699.6	713.9	729.6	733.8
40°	665.3	673.9	688.2	706.7	713.9
42.5°	635.3	643.9	661.0	685.3	693.9
45°	603.9	613.9	635.3	662.5	673.9
47.5°	572.5	583.9	608.2	639.6	652.5
50°	536.8	551.1	581.1	616.8	631.0
52.5°	502.6	519.7	552.5	592.5	611.1
55°	466.9	484.0	526.8	568.2	588.2
57.5°	426.9	449.7	496.8	544.0	565.4
60°	389.8	411.2	468.3	519.7	541.1
62.5°	349.8	378.3	439.7	494.0	515.4
65°	308.4	339.8	409.8	464.0	485.4
67.5°	271.3	305.5	379.8	434.0	455.4
70°	227.0	269.8	346.9	401.2	422.6
72.5°	185.6	232.7	312.7	365.5	385.5
75°	145.6	198.5	277.0	324.1	334.1
77.5°	108.5	164.2	239.9	259.8	252.7
80°	77.1	131.3	187.0	177.0	181.3
82.5°	50.0	99.9	115.6	131.3	135.6
85°	28.6	58.5	71.4	77.1	80.0
87.5°	12.8	21.4	28.6	28.6	27.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)