

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: P276190

Luminaire Tested: **24CZ2-35HE-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276190  
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: 24CZ2-35HE-UNV-L92765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3015.8 lumens  
Efficiency: N/A  
Efficacy: 122.4 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

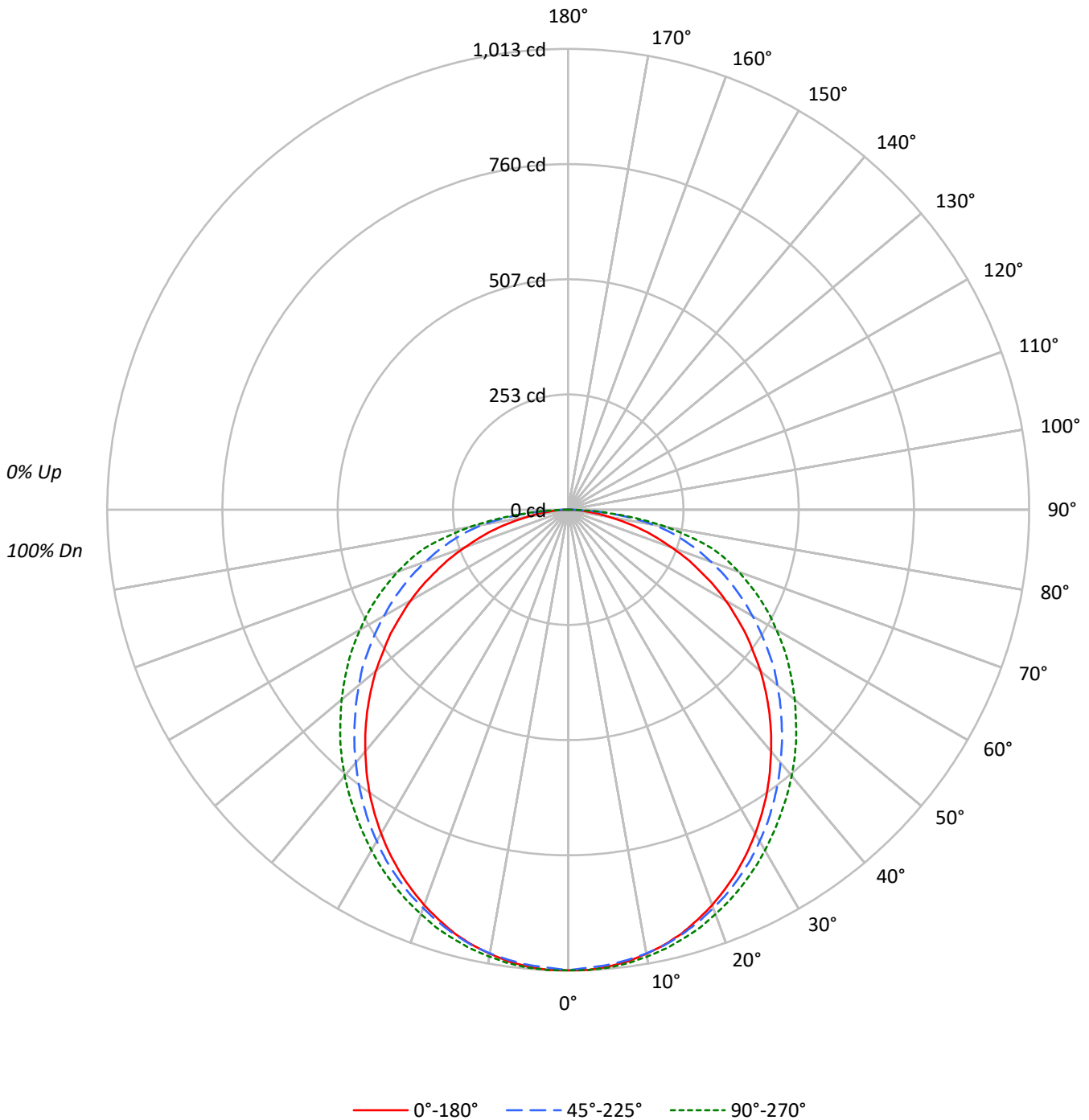
Input Watts (W): 24.645  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1362	1362	1362
5°	1362	1357	1365
10°	1354	1353	1363
15°	1343	1346	1360
20°	1324	1334	1355
25°	1303	1322	1349
30°	1278	1307	1343
35°	1250	1291	1339
40°	1218	1275	1342
45°	1187	1262	1348
50°	1155	1256	1361
55°	1119	1254	1386
60°	1075	1259	1422
65°	1019	1279	1484
70°	947	1311	1568
75°	863	1376	1700
80°	710	1481	1700
85°	543	1368	1460



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.8	3.2
10°-20°	273.4	9.1
20°-30°	411.4	13.6
30°-40°	493.0	16.3
40°-50°	513.8	17.0
50°-60°	478.0	15.9
60°-70°	393.7	13.1
70°-80°	268.1	8.9
80°-90°	88.5	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°	780.6	25.9
0°-40°	1273.6	42.2
0°-60°	2265.5	75.1
0°-90°	3015.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3015.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1013	1013	1013	1013	1013	
5°	1008	1008	1004	1010	1010	96
15°	964	965	966	975	976	272
25°	878	882	891	906	909	404
35°	761	770	786	807	815	476
45°	624	637	663	696	709	481
55°	477	493	534	577	591	425
65°	320	347	402	449	466	318
75°	166	203	265	312	327	175
85°	35	68	89	95	95	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1012.6	1012.6	1012.6	1012.6	1012.6
2.5°	1012.6	1012.6	1007.5	1012.6	1012.6
5°	1008.5	1008.5	1004.5	1009.5	1010.5
7.5°	1001.5	1002.5	998.5	1004.5	1005.5
10°	991.4	992.4	990.4	996.5	997.5
12.5°	979.3	980.4	980.4	987.4	988.4
15°	964.2	965.3	966.3	975.3	976.3
17.5°	945.1	948.1	950.2	961.2	963.2
20°	925.0	928.0	932.0	944.1	946.1
22.5°	901.8	905.9	912.9	926.0	929.0
25°	877.7	881.7	890.8	905.9	908.9
27.5°	850.5	856.5	867.6	883.7	887.8
30°	822.3	828.4	841.5	858.6	864.6
32.5°	792.1	800.2	815.3	834.4	840.4
35°	760.9	770.0	786.1	807.2	815.3
37.5°	727.7	737.8	756.9	780.1	790.1
40°	693.5	705.6	725.7	752.9	763.9
42.5°	659.3	670.3	695.5	724.7	736.8
45°	624.0	637.1	663.3	696.5	708.6
47.5°	587.8	600.9	632.1	667.3	678.4
50°	551.6	564.7	599.9	637.1	650.2
52.5°	512.3	529.4	569.7	606.9	620.0
55°	477.1	493.2	534.5	576.7	590.8
57.5°	436.8	456.0	501.2	545.5	560.6
60°	399.6	419.7	468.0	513.3	528.4
62.5°	361.3	383.5	434.8	481.1	498.2
65°	320.1	347.2	401.6	448.9	466.0
67.5°	282.8	311.0	368.4	416.7	431.8
70°	240.6	274.8	333.2	381.5	398.6
72.5°	204.3	238.5	299.9	347.2	364.4
75°	166.1	203.3	264.7	312.0	327.1
77.5°	127.8	169.1	230.5	266.7	271.8
80°	91.6	134.9	191.2	212.4	219.4
82.5°	64.4	103.7	140.9	155.0	159.0
85°	35.2	68.4	88.6	94.6	94.6
87.5°	15.1	29.2	35.2	36.2	37.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)