

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: P276196

Luminaire Tested: **24CZ2-40HE-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276196  
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: 24CZ2-40HE-UNV-L92765-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3139.8 lumens  
Efficiency: N/A  
Efficacy: 112.2 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

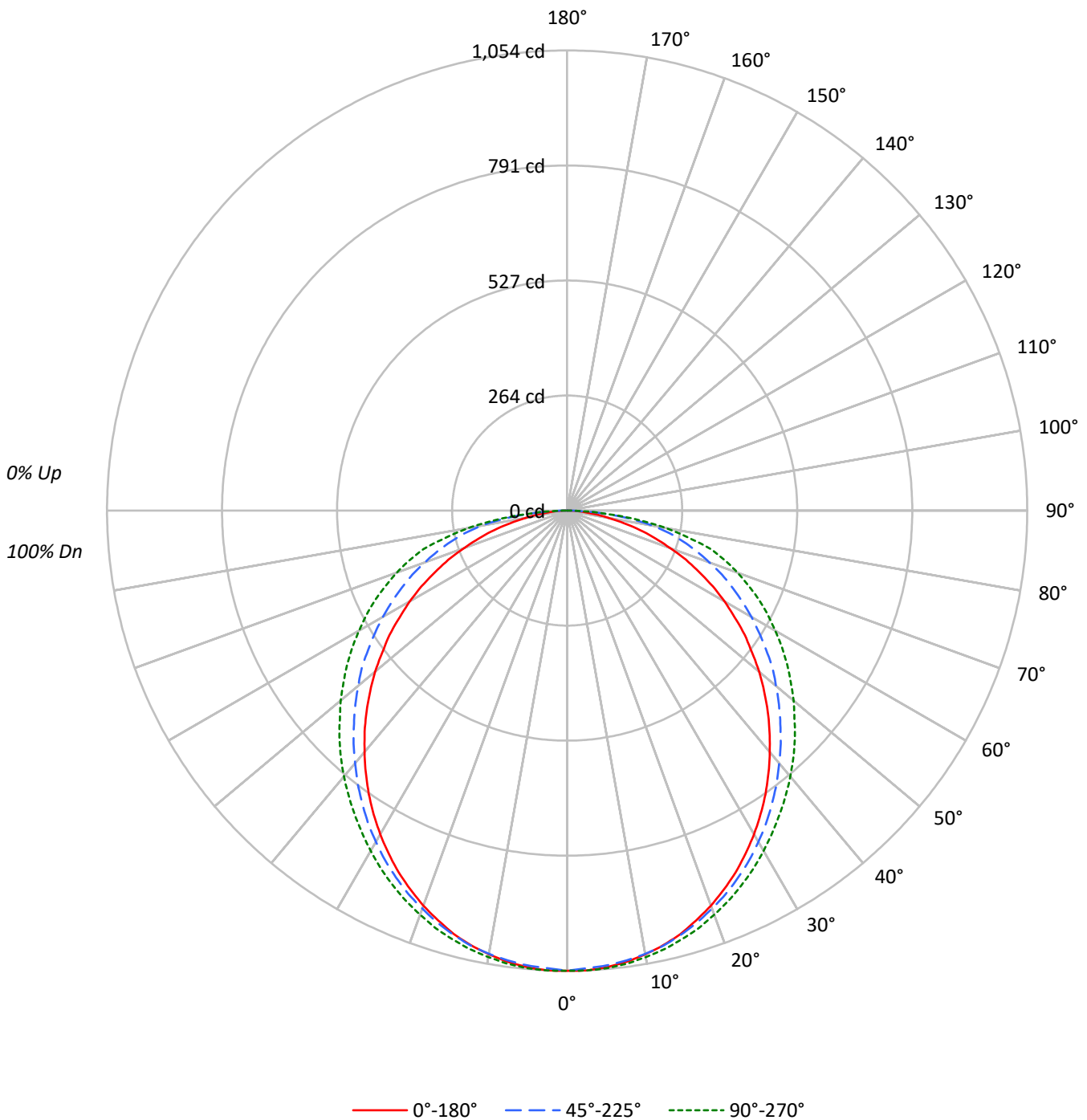
Input Watts (W): 27.993  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1418	1418	1418
5°	1418	1412	1421
10°	1410	1409	1419
15°	1398	1401	1416
20°	1379	1389	1410
25°	1357	1377	1405
30°	1330	1361	1398
35°	1301	1344	1394
40°	1268	1327	1397
45°	1236	1314	1404
50°	1202	1307	1417
55°	1165	1305	1443
60°	1119	1311	1480
65°	1061	1331	1545
70°	985	1364	1633
75°	899	1433	1771
80°	739	1543	1770
85°	567	1423	1521



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.7	3.2
10°-20°	284.6	9.1
20°-30°	428.3	13.6
30°-40°	513.3	16.3
40°-50°	534.9	17.0
50°-60°	497.7	15.9
60°-70°	409.9	13.1
70°-80°	279.2	8.9
80°-90°	92.2	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°	812.7	25.9
0°-40°	1326.0	42.2
0°-60°	2358.6	75.1
0°-90°	3139.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3139.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1054	1054	1054	1054	1054	
5°	1050	1050	1046	1051	1052	100
15°	1004	1005	1006	1015	1016	283
25°	914	918	927	943	946	421
35°	792	802	818	840	849	495
45°	650	663	691	725	738	501
55°	497	514	556	600	615	443
65°	333	362	418	467	485	331
75°	173	212	276	325	341	182
85°	37	71	92	98	98	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1054.2	1054.2	1054.2	1054.2	1054.2
2.5°	1054.2	1054.2	1048.9	1054.2	1054.2
5°	1050.0	1050.0	1045.8	1051.0	1052.1
7.5°	1042.6	1043.7	1039.5	1045.8	1046.8
10°	1032.2	1033.2	1031.1	1037.4	1038.4
12.5°	1019.6	1020.6	1020.6	1028.0	1029.0
15°	1003.9	1004.9	1006.0	1015.4	1016.4
17.5°	984.0	987.1	989.2	1000.7	1002.8
20°	963.0	966.1	970.3	982.9	985.0
22.5°	938.9	943.1	950.4	964.1	967.2
25°	913.8	917.9	927.4	943.1	946.2
27.5°	885.5	891.7	903.3	920.0	924.2
30°	856.1	862.4	876.0	893.8	900.1
32.5°	824.7	833.1	848.8	868.7	875.0
35°	792.2	801.6	818.4	840.4	848.8
37.5°	757.6	768.1	788.0	812.1	822.6
40°	722.0	734.6	755.5	783.8	795.3
42.5°	686.4	697.9	724.1	754.5	767.0
45°	649.7	663.3	690.6	725.1	737.7
47.5°	612.0	625.6	658.1	694.7	706.3
50°	574.2	587.9	624.5	663.3	676.9
52.5°	533.4	551.2	593.1	631.9	645.5
55°	496.7	513.5	556.4	600.4	615.1
57.5°	454.8	474.7	521.8	568.0	583.7
60°	416.0	437.0	487.3	534.4	550.1
62.5°	376.2	399.2	452.7	500.9	518.7
65°	333.2	361.5	418.1	467.4	485.2
67.5°	294.5	323.8	383.5	433.8	449.5
70°	250.4	286.1	346.8	397.1	415.0
72.5°	212.7	248.3	312.3	361.5	379.3
75°	172.9	211.7	275.6	324.8	340.6
77.5°	133.1	176.0	240.0	277.7	282.9
80°	95.4	140.4	199.1	221.1	228.4
82.5°	67.1	107.9	146.7	161.4	165.6
85°	36.7	71.3	92.2	98.5	98.5
87.5°	15.7	30.4	36.7	37.7	38.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)