

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: P388571

Luminaire Tested: **24CZ2-35HE-SQR-UNV-L950-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P388571  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35HE-SQR-UNV-L950-CD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3120.0 lumens  
Efficiency: N/A  
Efficacy: 116.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

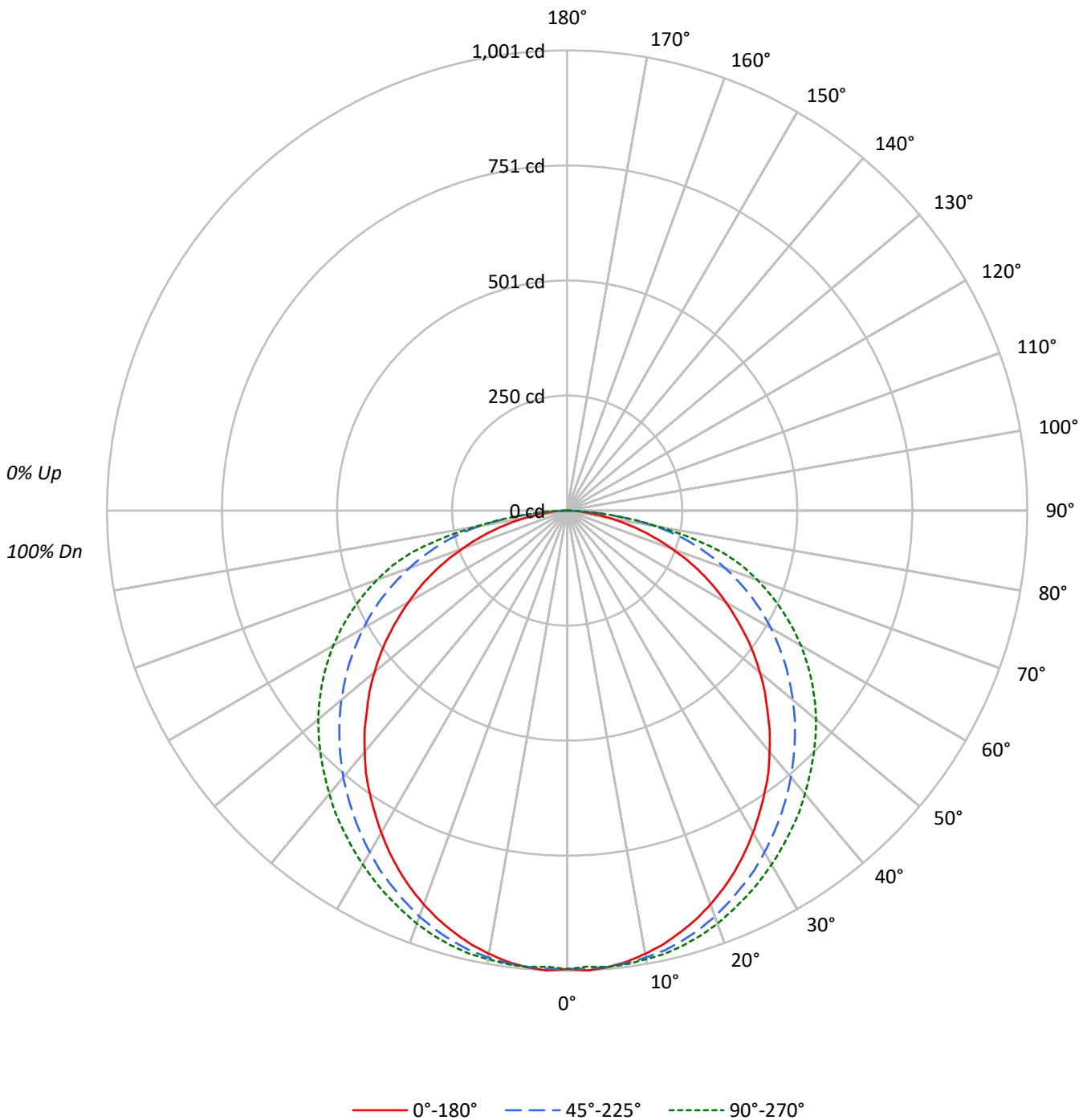
Input Watts (W): 26.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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

	0°	45°	90°
0°	1342	1342	1342
5°	1347	1346	1346
10°	1337	1348	1354
15°	1323	1349	1363
20°	1306	1345	1369
25°	1283	1338	1374
30°	1257	1333	1381
35°	1230	1330	1394
40°	1203	1330	1413
45°	1172	1333	1441
50°	1145	1341	1479
55°	1112	1356	1525
60°	1073	1378	1580
65°	1027	1404	1647
70°	952	1439	1731
75°	862	1489	1810
80°	727	1493	1557
85°	557	1129	1129



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.7	3.0
10°-20°	272.4	8.7
20°-30°	413.7	13.3
30°-40°	503.2	16.1
40°-50°	535.8	17.2
50°-60°	510.3	16.4
60°-70°	426.8	13.7
70°-80°	284.5	9.1
80°-90°	78.7	2.5
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°	780.7	25.0
0°-40°	1284.0	41.2
0°-60°	2330.0	74.7
0°-90°	3120.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3120.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	997	991	996	996	996	95
15°	950	952	968	976	979	268
25°	864	876	902	917	925	398
35°	749	771	810	837	849	469
45°	616	649	701	740	757	476
55°	474	515	578	628	650	424
65°	322	370	441	496	517	319
75°	166	218	286	335	348	176
85°	36	67	73	72	73	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	997.3	997.3	997.3	997.3	997.3
2.5°	1001.4	994.2	997.3	997.3	993.2
5°	997.3	991.1	996.3	996.3	996.3
7.5°	990.1	984.9	993.2	995.2	995.2
10°	978.8	976.7	987.0	990.1	991.1
12.5°	966.4	965.4	979.8	983.9	987.0
15°	949.9	952.0	968.5	975.7	978.8
17.5°	932.4	936.5	955.1	965.4	968.5
20°	911.8	918.0	939.6	949.9	956.1
22.5°	889.1	898.4	921.1	933.4	940.6
25°	864.4	875.7	901.5	916.9	925.2
27.5°	837.6	852.0	881.9	899.4	907.7
30°	808.8	825.2	858.2	878.8	889.1
32.5°	778.9	798.5	834.5	857.2	869.6
35°	749.0	770.6	809.8	836.6	848.9
37.5°	719.1	740.8	784.0	812.9	828.3
40°	685.1	710.9	757.3	789.2	804.6
42.5°	652.2	680.0	729.4	764.5	780.9
45°	616.1	649.1	700.6	739.7	757.3
47.5°	583.1	616.1	671.7	712.9	732.5
50°	547.1	582.1	640.8	686.2	706.8
52.5°	512.0	548.1	609.9	658.3	678.9
55°	473.9	515.1	578.0	628.5	650.1
57.5°	435.8	480.1	545.0	597.6	619.2
60°	398.7	444.0	512.0	564.6	587.3
62.5°	361.6	407.0	478.0	531.6	553.3
65°	322.5	369.9	441.0	495.6	517.2
67.5°	283.3	332.8	403.9	458.5	479.1
70°	242.1	294.7	365.7	419.3	439.9
72.5°	204.0	256.5	326.6	379.1	398.7
75°	165.9	218.4	286.4	334.8	348.2
77.5°	128.8	181.3	242.1	274.1	277.1
80°	93.8	143.2	192.7	201.9	200.9
82.5°	62.8	107.1	132.9	133.9	137.0
85°	36.1	67.0	73.1	72.1	73.1
87.5°	14.4	23.7	20.6	15.5	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)