

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: P388570

Luminaire Tested: **24CZ2-35HE-SQR-UNV-L950-CD1-SWPD1-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: P388570
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-SWPD1-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: 3081.3 lumens
Efficiency: N/A
Efficacy: 114.5 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

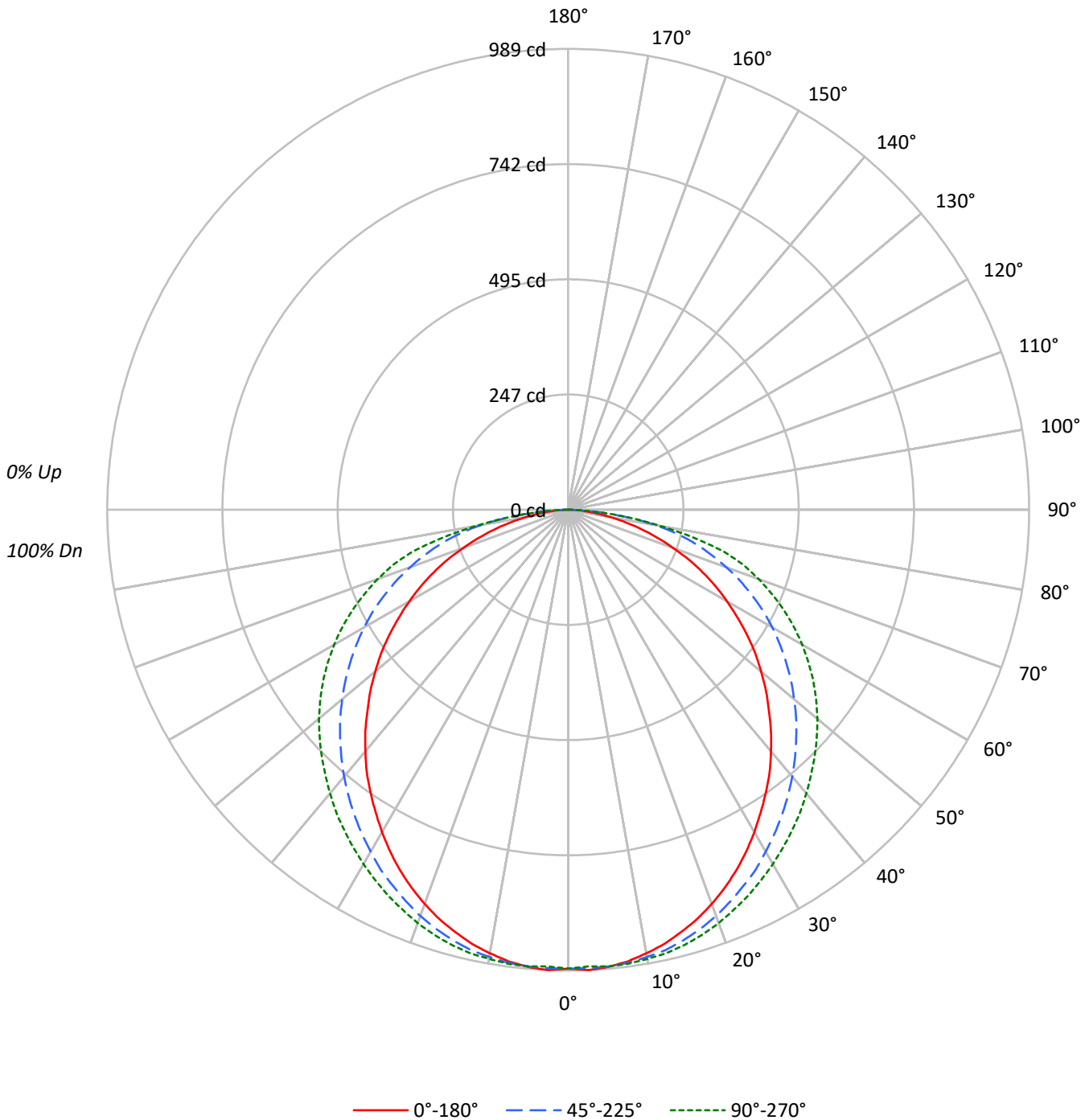
Input Watts (W): 26.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1325	1325	1325
5°	1330	1329	1329
10°	1321	1332	1337
15°	1307	1332	1346
20°	1289	1329	1352
25°	1267	1322	1356
30°	1241	1317	1364
35°	1215	1314	1377
40°	1188	1314	1396
45°	1158	1317	1423
50°	1131	1325	1461
55°	1098	1339	1506
60°	1060	1361	1561
65°	1014	1387	1626
70°	941	1421	1709
75°	852	1471	1788
80°	717	1475	1537
85°	550	1115	1115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.5	3.0
10°-20°	269.0	8.7
20°-30°	408.6	13.3
30°-40°	497.0	16.1
40°-50°	529.1	17.2
50°-60°	504.0	16.4
60°-70°	421.5	13.7
70°-80°	281.0	9.1
80°-90°	77.7	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°	771.1	25.0
0°-40°	1268.0	41.2
0°-60°	2301.1	74.7
0°-90°	3081.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3081.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	985	985	985	985	985	
5°	985	979	984	984	984	93
15°	938	940	956	964	967	265
25°	854	865	890	906	914	393
35°	740	761	800	826	838	463
45°	608	641	692	731	748	470
55°	468	509	571	621	642	418
65°	318	365	436	489	511	315
75°	164	216	283	331	344	174
85°	36	66	72	71	72	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	984.9	984.9	984.9	984.9	984.9
2.5°	989.0	981.9	984.9	984.9	980.9
5°	984.9	978.8	983.9	983.9	983.9
7.5°	977.8	972.7	980.9	982.9	982.9
10°	966.6	964.6	974.8	977.8	978.8
12.5°	954.4	953.4	967.6	971.7	974.8
15°	938.1	940.2	956.4	963.6	966.6
17.5°	920.8	924.9	943.2	953.4	956.4
20°	900.5	906.6	928.0	938.1	944.2
22.5°	878.1	887.3	909.6	921.8	929.0
25°	853.7	864.9	890.3	905.6	913.7
27.5°	827.2	841.5	871.0	888.3	896.4
30°	798.7	815.0	847.6	867.9	878.1
32.5°	769.2	788.6	824.2	846.6	858.8
35°	739.7	761.1	799.7	826.2	838.4
37.5°	710.2	731.6	774.3	802.8	818.1
40°	676.6	702.1	747.9	779.4	794.7
42.5°	644.1	671.5	720.4	755.0	771.3
45°	608.5	641.0	691.9	730.6	747.9
47.5°	575.9	608.5	663.4	704.1	723.4
50°	540.3	574.9	632.9	677.7	698.0
52.5°	505.7	541.3	602.4	650.2	670.5
55°	468.0	508.7	570.8	620.7	642.0
57.5°	430.4	474.2	538.3	590.1	611.5
60°	393.8	438.5	505.7	557.6	580.0
62.5°	357.1	401.9	472.1	525.0	546.4
65°	318.5	365.3	435.5	489.4	510.8
67.5°	279.8	328.7	398.9	452.8	473.1
70°	239.1	291.0	361.2	414.1	434.5
72.5°	201.5	253.4	322.5	374.4	393.8
75°	163.8	215.7	282.9	330.7	343.9
77.5°	127.2	179.1	239.1	270.7	273.7
80°	92.6	141.4	190.3	199.4	198.4
82.5°	62.1	105.8	131.3	132.3	135.3
85°	35.6	66.1	72.2	71.2	72.2
87.5°	14.2	23.4	20.3	15.3	15.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)