

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: P388537

Luminaire Tested: **24CZ2-35-SQR-UNV-L930-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: P388537
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: 24CZ2-35-SQR-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2846.9 lumens
Efficiency: N/A
Efficacy: 94.6 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

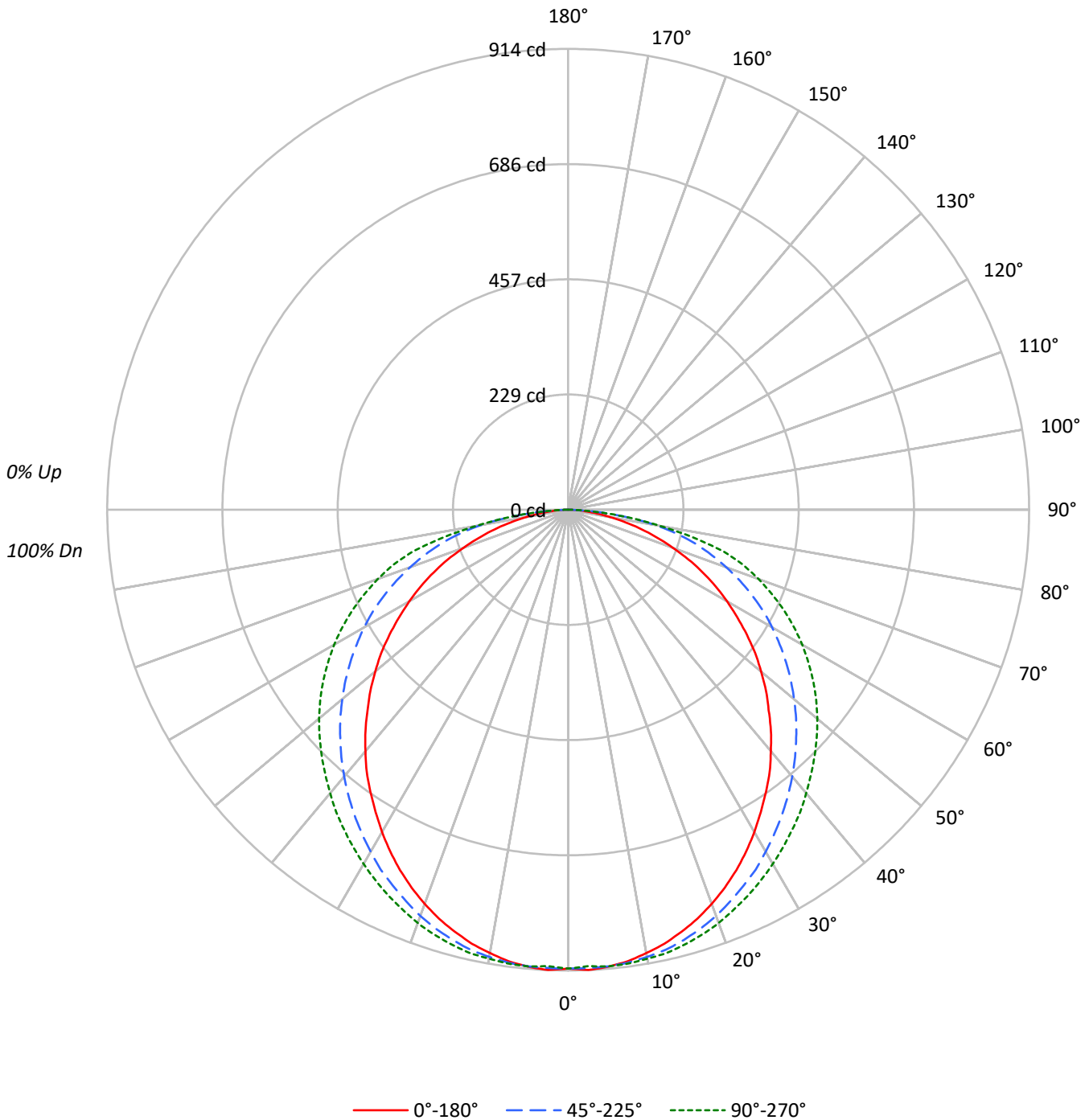
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1224	1224	1224
5°	1229	1228	1228
10°	1220	1230	1236
15°	1207	1231	1244
20°	1191	1228	1249
25°	1171	1221	1253
30°	1147	1217	1260
35°	1123	1214	1272
40°	1098	1214	1290
45°	1070	1216	1315
50°	1045	1224	1350
55°	1014	1237	1392
60°	979	1257	1442
65°	937	1281	1502
70°	869	1313	1579
75°	787	1358	1652
80°	662	1362	1420
85°	508	1030	1030



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.4	3.0
10°-20°	248.5	8.7
20°-30°	377.5	13.3
30°-40°	459.2	16.1
40°-50°	488.9	17.2
50°-60°	465.6	16.4
60°-70°	389.4	13.7
70°-80°	259.6	9.1
80°-90°	71.8	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°	712.4	25.0
0°-40°	1171.6	41.2
0°-60°	2126.1	74.7
0°-90°	2846.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2846.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	910	904	909	909	909	86
15°	867	869	884	890	893	244
25°	789	799	823	837	844	363
35°	683	703	739	763	775	428
45°	562	592	639	675	691	435
55°	432	470	527	574	593	387
65°	294	338	402	452	472	291
75°	151	199	261	306	318	160
85°	33	61	67	66	67	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	910.0	910.0	910.0	910.0	910.0
2.5°	913.8	907.2	910.0	910.0	906.2
5°	910.0	904.4	909.1	909.1	909.1
7.5°	903.4	898.7	906.2	908.1	908.1
10°	893.1	891.2	900.6	903.4	904.4
12.5°	881.8	880.9	894.0	897.8	900.6
15°	866.8	868.6	883.7	890.3	893.1
17.5°	850.8	854.5	871.5	880.9	883.7
20°	832.0	837.6	857.4	866.8	872.4
22.5°	811.3	819.8	840.4	851.7	858.3
25°	788.7	799.1	822.6	836.7	844.2
27.5°	764.3	777.5	804.7	820.7	828.2
30°	738.0	753.0	783.1	801.9	811.3
32.5°	710.7	728.6	761.5	782.2	793.4
35°	683.4	703.2	738.9	763.4	774.6
37.5°	656.2	675.9	715.4	741.7	755.8
40°	625.2	648.7	691.0	720.1	734.2
42.5°	595.1	620.5	665.6	697.5	712.6
45°	562.2	592.3	639.3	675.0	691.0
47.5°	532.1	562.2	612.9	650.5	668.4
50°	499.2	531.2	584.7	626.1	644.9
52.5°	467.2	500.1	556.5	600.7	619.5
55°	432.4	470.0	527.4	573.5	593.2
57.5°	397.7	438.1	497.3	545.3	565.0
60°	363.8	405.2	467.2	515.2	535.9
62.5°	330.0	371.3	436.2	485.1	504.8
65°	294.2	337.5	402.4	452.2	471.9
67.5°	258.5	303.6	368.5	418.3	437.1
70°	220.9	268.9	333.7	382.6	401.4
72.5°	186.1	234.1	298.0	346.0	363.8
75°	151.4	199.3	261.3	305.5	317.8
77.5°	117.5	165.5	220.9	250.1	252.9
80°	85.5	130.7	175.8	184.3	183.3
82.5°	57.3	97.8	121.3	122.2	125.0
85°	32.9	61.1	66.7	65.8	66.7
87.5°	13.2	21.6	18.8	14.1	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)