

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: P388543

Luminaire Tested: **24CZ2-35-SQR-UNV-L940-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: P388543
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-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2947.5 lumens
Efficiency: N/A
Efficacy: 97.9 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

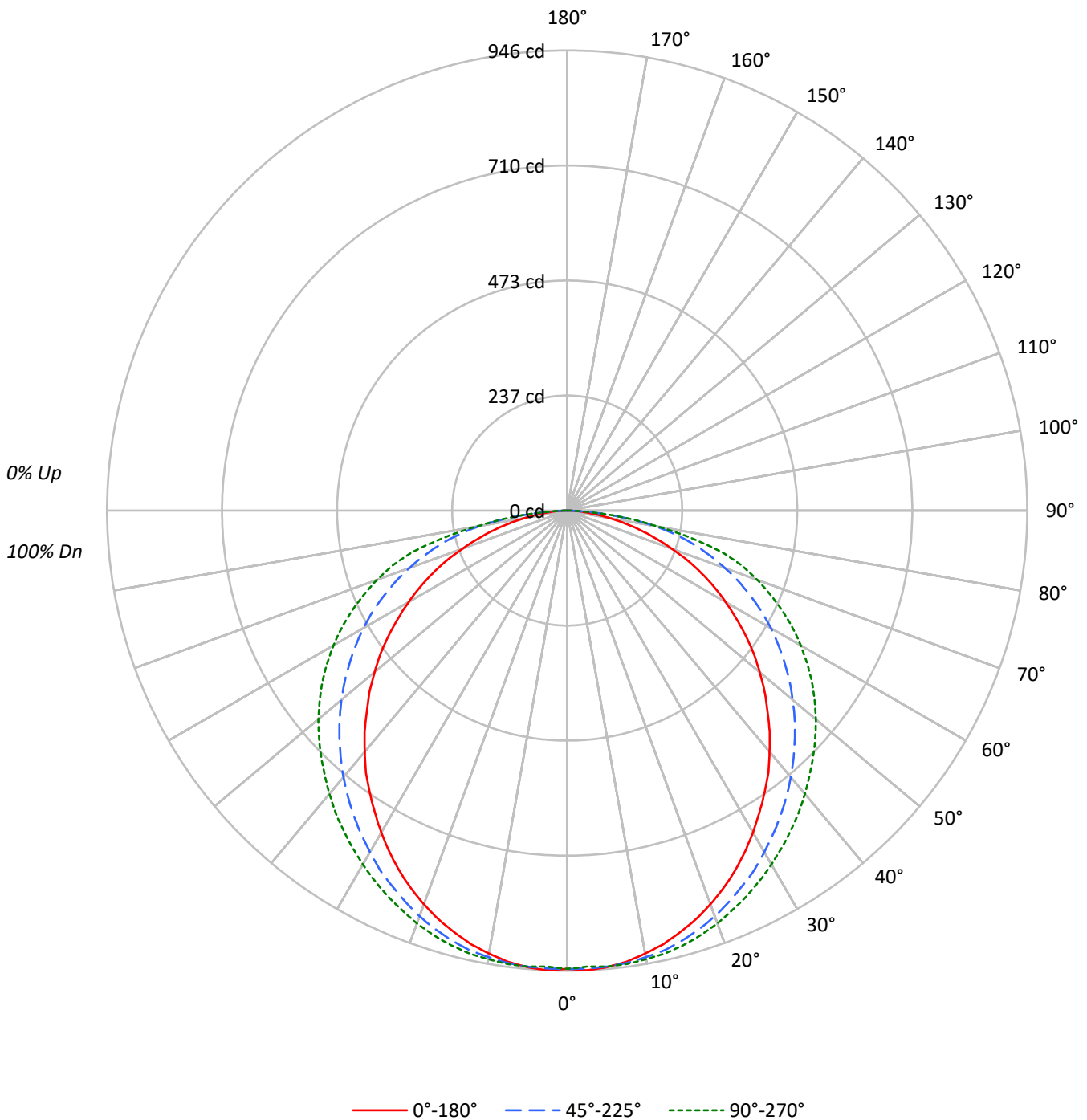
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1268	1268	1268
5°	1273	1271	1271
10°	1263	1274	1279
15°	1250	1274	1288
20°	1233	1271	1293
25°	1212	1264	1298
30°	1187	1260	1305
35°	1162	1257	1317
40°	1137	1257	1335
45°	1107	1259	1361
50°	1082	1267	1398
55°	1050	1281	1441
60°	1014	1302	1493
65°	970	1326	1556
70°	900	1359	1635
75°	815	1407	1710
80°	687	1410	1471
85°	526	1067	1067



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.4	3.0
10°-20°	257.3	8.7
20°-30°	390.8	13.3
30°-40°	475.4	16.1
40°-50°	506.1	17.2
50°-60°	482.1	16.4
60°-70°	403.1	13.7
70°-80°	268.8	9.1
80°-90°	74.4	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°	737.6	25.0
0°-40°	1213.0	41.2
0°-60°	2201.2	74.7
0°-90°	2947.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2947.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	942	942	942	942	942	
5°	942	936	941	941	941	89
15°	897	899	915	922	925	253
25°	817	827	852	866	874	376
35°	708	728	765	790	802	443
45°	582	613	662	699	715	450
55°	448	487	546	594	614	400
65°	305	349	417	468	489	301
75°	157	206	271	316	329	166
85°	34	63	69	68	69	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	942.2	942.2	942.2	942.2	942.2
2.5°	946.1	939.2	942.2	942.2	938.3
5°	942.2	936.3	941.2	941.2	941.2
7.5°	935.4	930.5	938.3	940.2	940.2
10°	924.6	922.7	932.4	935.4	936.3
12.5°	913.0	912.0	925.6	929.5	932.4
15°	897.4	899.3	914.9	921.7	924.6
17.5°	880.8	884.7	902.3	912.0	914.9
20°	861.4	867.2	887.7	897.4	903.2
22.5°	840.0	848.7	870.1	881.8	888.6
25°	816.6	827.3	851.6	866.2	874.0
27.5°	791.3	804.9	833.2	849.7	857.5
30°	764.0	779.6	810.8	830.2	840.0
32.5°	735.8	754.3	788.4	809.8	821.5
35°	707.6	728.0	765.0	790.3	802.0
37.5°	679.4	699.8	740.7	767.9	782.5
40°	647.3	671.6	715.4	745.6	760.2
42.5°	616.1	642.4	689.1	722.2	737.8
45°	582.0	613.2	661.9	698.8	715.4
47.5°	550.9	582.0	634.6	673.5	692.0
50°	516.8	549.9	605.4	648.2	667.7
52.5°	483.7	517.8	576.2	621.9	641.4
55°	447.7	486.7	546.0	593.7	614.2
57.5°	411.7	453.6	514.9	564.5	585.0
60°	376.7	419.5	483.7	533.4	554.8
62.5°	341.6	384.5	451.6	502.2	522.7
65°	304.6	349.4	416.6	468.2	488.6
67.5°	267.7	314.4	381.5	433.1	452.6
70°	228.7	278.4	345.5	396.1	415.6
72.5°	192.7	242.4	308.5	358.2	376.7
75°	156.7	206.3	270.6	316.3	329.0
77.5°	121.7	171.3	228.7	258.9	261.8
80°	88.6	135.3	182.0	190.8	189.8
82.5°	59.4	101.2	125.6	126.5	129.5
85°	34.1	63.3	69.1	68.1	69.1
87.5°	13.6	22.4	19.5	14.6	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)