

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: P388546

Luminaire Tested: **24CZ2-35-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: P388546
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-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: 3128.6 lumens
Efficiency: N/A
Efficacy: 103.9 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

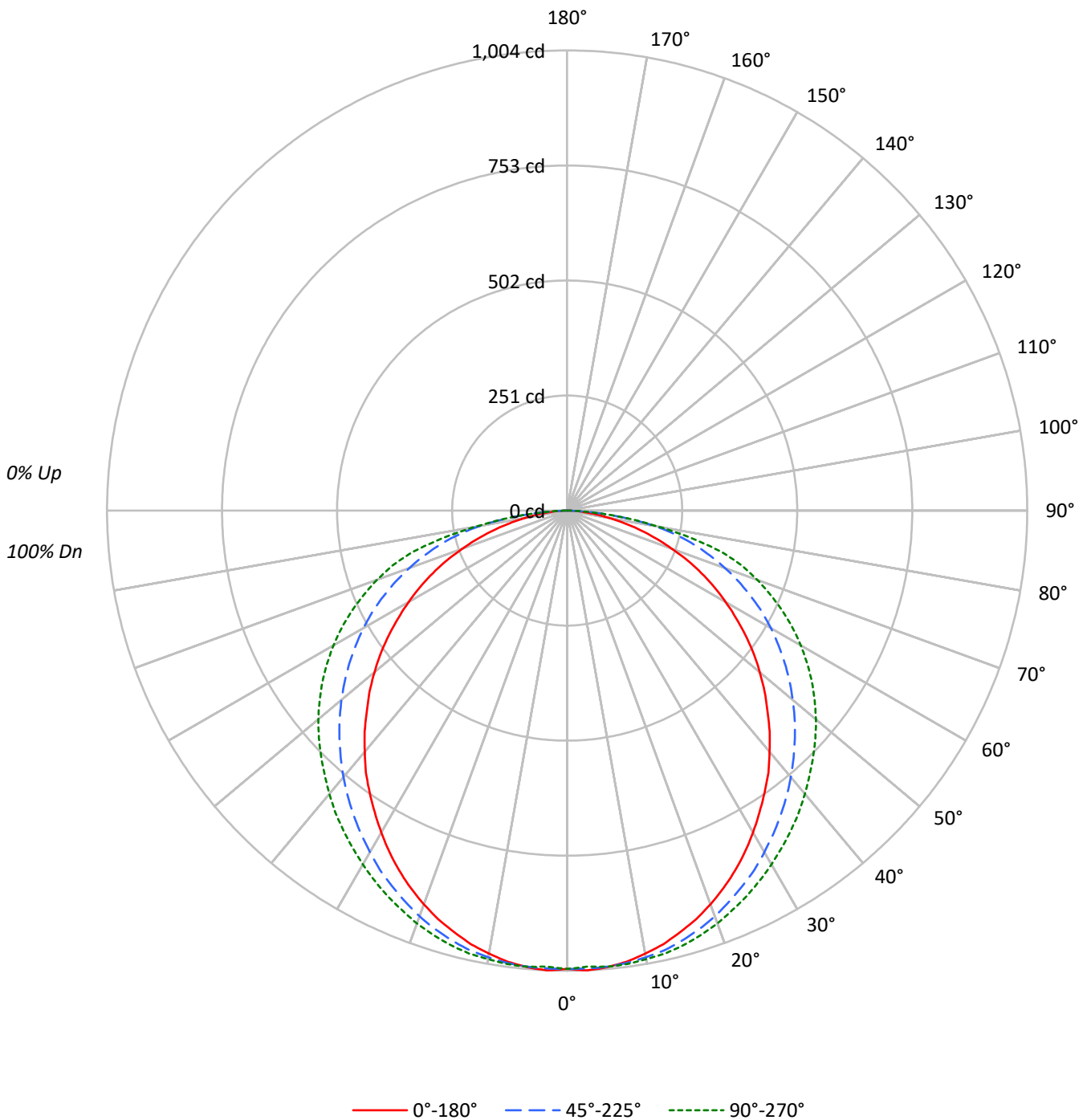
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67					67			
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47					47			
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41					41			
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35					35			
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28					28			
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25					25			
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1346	1346	1346
5°	1351	1349	1349
10°	1341	1352	1358
15°	1327	1353	1367
20°	1309	1349	1373
25°	1287	1342	1377
30°	1260	1337	1385
35°	1234	1334	1398
40°	1207	1334	1417
45°	1176	1337	1445
50°	1148	1345	1483
55°	1115	1360	1529
60°	1076	1382	1585
65°	1030	1408	1651
70°	955	1443	1735
75°	865	1493	1815
80°	728	1497	1561
85°	559	1133	1133



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	3.0
10°-20°	273.1	8.7
20°-30°	414.8	13.3
30°-40°	504.6	16.1
40°-50°	537.2	17.2
50°-60°	511.7	16.4
60°-70°	427.9	13.7
70°-80°	285.3	9.1
80°-90°	79.0	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°	782.9	25.0
0°-40°	1287.5	41.2
0°-60°	2336.4	74.7
0°-90°	3128.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3128.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1000	1000	1000	1000	1000	
5°	1000	994	999	999	999	95
15°	952	955	971	978	982	269
25°	867	878	904	920	928	399
35°	751	773	812	839	851	470
45°	618	651	702	742	759	478
55°	475	517	580	630	652	425
65°	323	371	442	497	519	319
75°	166	219	287	336	349	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°	1000.1	1000.1	1000.1	1000.1	1000.1
2.5°	1004.2	997.0	1000.1	1000.1	995.9
5°	1000.1	993.9	999.0	999.0	999.0
7.5°	992.8	987.7	995.9	998.0	998.0
10°	981.5	979.4	989.7	992.8	993.9
12.5°	969.1	968.0	982.5	986.6	989.7
15°	952.5	954.6	971.1	978.4	981.5
17.5°	935.0	939.1	957.7	968.0	971.1
20°	914.3	920.5	942.2	952.5	958.7
22.5°	891.6	900.9	923.6	936.0	943.2
25°	866.8	878.1	904.0	919.5	927.7
27.5°	839.9	854.4	884.3	901.9	910.2
30°	811.0	827.5	860.6	881.2	891.6
32.5°	781.0	800.7	836.8	859.5	871.9
35°	751.1	772.8	812.0	838.9	851.3
37.5°	721.1	742.8	786.2	815.1	830.6
40°	687.0	712.8	759.3	791.4	806.9
42.5°	654.0	681.9	731.4	766.6	783.1
45°	617.8	650.9	702.5	741.8	759.3
47.5°	584.7	617.8	673.6	714.9	734.5
50°	548.6	583.7	642.6	688.1	708.7
52.5°	513.5	549.6	611.6	660.2	680.8
55°	475.2	516.6	579.6	630.2	651.9
57.5°	437.0	481.4	546.5	599.2	620.9
60°	399.8	445.3	513.5	566.1	588.9
62.5°	362.6	408.1	479.4	533.1	554.8
65°	323.4	370.9	442.2	496.9	518.6
67.5°	284.1	333.7	405.0	459.7	480.4
70°	242.8	295.5	366.8	420.5	441.1
72.5°	204.6	257.2	327.5	380.2	399.8
75°	166.3	219.0	287.2	335.8	349.2
77.5°	129.1	181.8	242.8	274.8	277.9
80°	94.0	143.6	193.2	202.5	201.5
82.5°	63.0	107.4	133.3	134.3	137.4
85°	36.2	67.2	73.4	72.3	73.4
87.5°	14.5	23.8	20.7	15.5	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)