

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: P388520

Luminaire Tested: **24CZ2-30VHE-SQR-UNV-L940-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: P388520
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: 24CZ2-30VHE-SQR-UNV-L940-CD1-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: 2470.2 lumens
Efficiency: N/A
Efficacy: 121.1 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

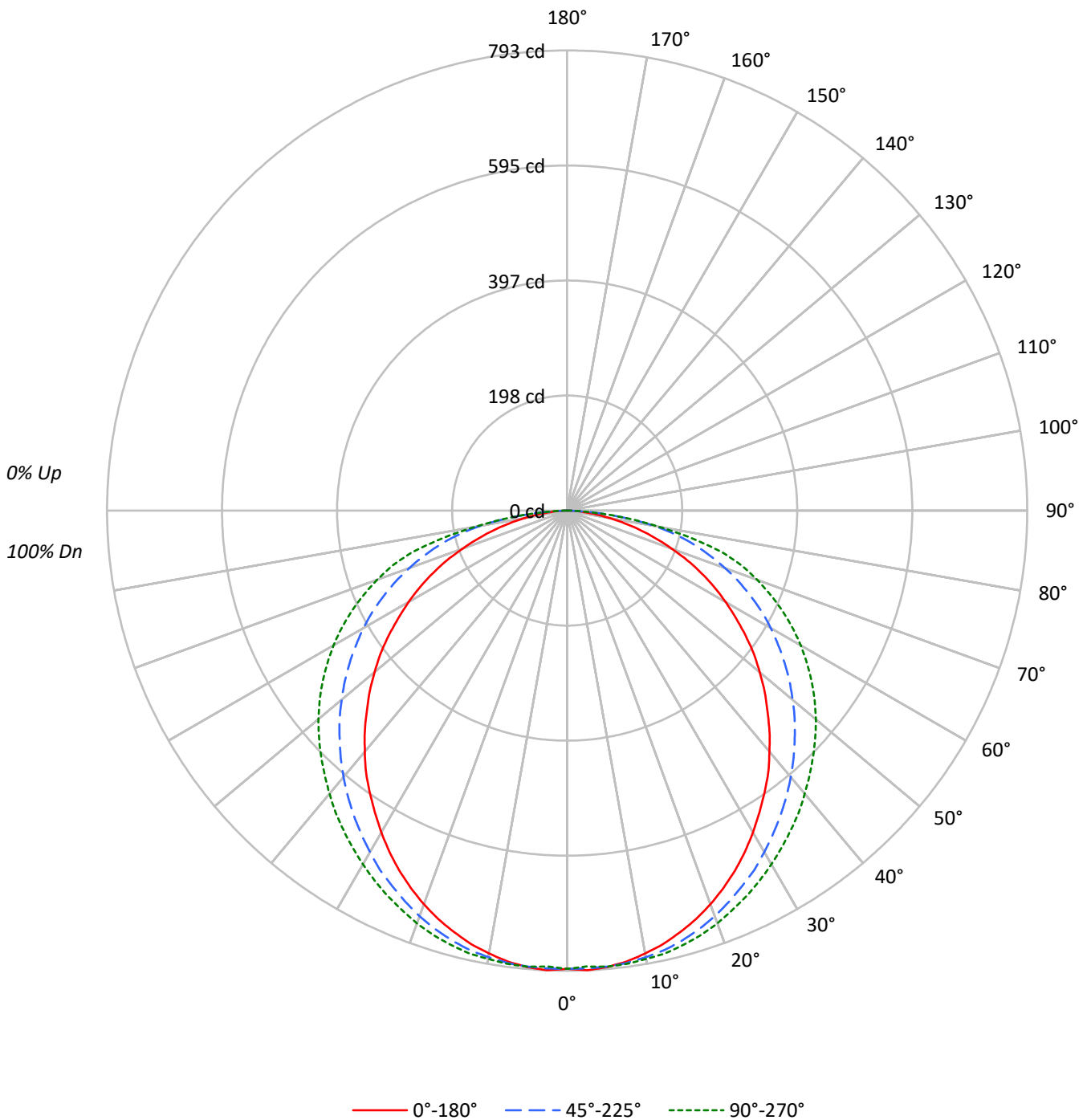
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388520

CATALOG NUMBER: 24CZ2-30VHE-SQR-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388520

CATALOG NUMBER: 24CZ2-30VHE-SQR-UNV-L940-CD1-U

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°	1062	1062	1062
5°	1066	1065	1065
10°	1059	1068	1072
15°	1048	1068	1079
20°	1034	1065	1084
25°	1016	1060	1087
30°	995	1056	1094
35°	974	1053	1104
40°	953	1053	1119
45°	928	1055	1141
50°	907	1062	1171
55°	880	1073	1207
60°	850	1091	1251
65°	813	1111	1304
70°	754	1139	1370
75°	683	1179	1433
80°	575	1182	1233
85°	440	894	894



TEST NUMBER: P388520

CATALOG NUMBER: 24CZ2-30VHE-SQR-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.0	3.0
10°-20°	215.6	8.7
20°-30°	327.5	13.3
30°-40°	398.4	16.1
40°-50°	424.2	17.2
50°-60°	404.0	16.4
60°-70°	337.9	13.7
70°-80°	225.3	9.1
80°-90°	62.3	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°	618.1	25.0
0°-40°	1016.5	41.2
0°-60°	1844.7	74.7
0°-90°	2470.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2470.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	790	790	790	790	790	
5°	790	785	789	789	789	75
15°	752	754	767	772	775	212
25°	684	693	714	726	732	315
35°	593	610	641	662	672	371
45°	488	514	555	586	600	377
55°	375	408	458	498	515	335
65°	255	293	349	392	410	252
75°	131	173	227	265	276	139
85°	28	53	58	57	58	34
90°	0	0	0	0	0	



TEST NUMBER: P388520

CATALOG NUMBER: 24CZ2-30VHE-SQR-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	789.6	789.6	789.6	789.6	789.6
2.5°	792.9	787.1	789.6	789.6	786.3
5°	789.6	784.7	788.8	788.8	788.8
7.5°	783.9	779.8	786.3	788.0	788.0
10°	774.9	773.3	781.4	783.9	784.7
12.5°	765.1	764.3	775.7	779.0	781.4
15°	752.1	753.7	766.8	772.5	774.9
17.5°	738.2	741.5	756.2	764.3	766.8
20°	721.9	726.8	743.9	752.1	757.0
22.5°	703.9	711.3	729.2	739.0	744.7
25°	684.4	693.3	713.7	726.0	732.5
27.5°	663.2	674.6	698.2	712.1	718.6
30°	640.3	653.4	679.5	695.8	703.9
32.5°	616.7	632.2	660.7	678.7	688.4
35°	593.0	610.1	641.1	662.3	672.1
37.5°	569.4	586.5	620.7	643.6	655.8
40°	542.4	562.8	599.5	624.8	637.1
42.5°	516.3	538.4	577.5	605.2	618.3
45°	487.8	513.9	554.7	585.7	599.5
47.5°	461.7	487.8	531.8	564.5	580.0
50°	433.1	460.9	507.4	543.3	559.6
52.5°	405.4	434.0	482.9	521.2	537.5
55°	375.2	407.8	457.6	497.6	514.7
57.5°	345.0	380.1	431.5	473.1	490.2
60°	315.7	351.6	405.4	447.0	464.9
62.5°	286.3	322.2	378.5	420.9	438.0
65°	255.3	292.8	349.1	392.4	409.5
67.5°	224.3	263.5	319.8	363.0	379.3
70°	191.7	233.3	289.6	332.0	348.3
72.5°	161.5	203.1	258.6	300.2	315.7
75°	131.3	172.9	226.8	265.1	275.7
77.5°	102.0	143.6	191.7	217.0	219.4
80°	74.2	113.4	152.5	159.9	159.1
82.5°	49.8	84.8	105.2	106.0	108.5
85°	28.5	53.0	57.9	57.1	57.9
87.5°	11.4	18.8	16.3	12.2	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)