

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: P230440

Luminaire Tested: **24CZ-LD5-45SE-SQP-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230440
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-45SE-SQP-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2616.1 lumens
Efficiency: N/A
Efficacy: 65.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

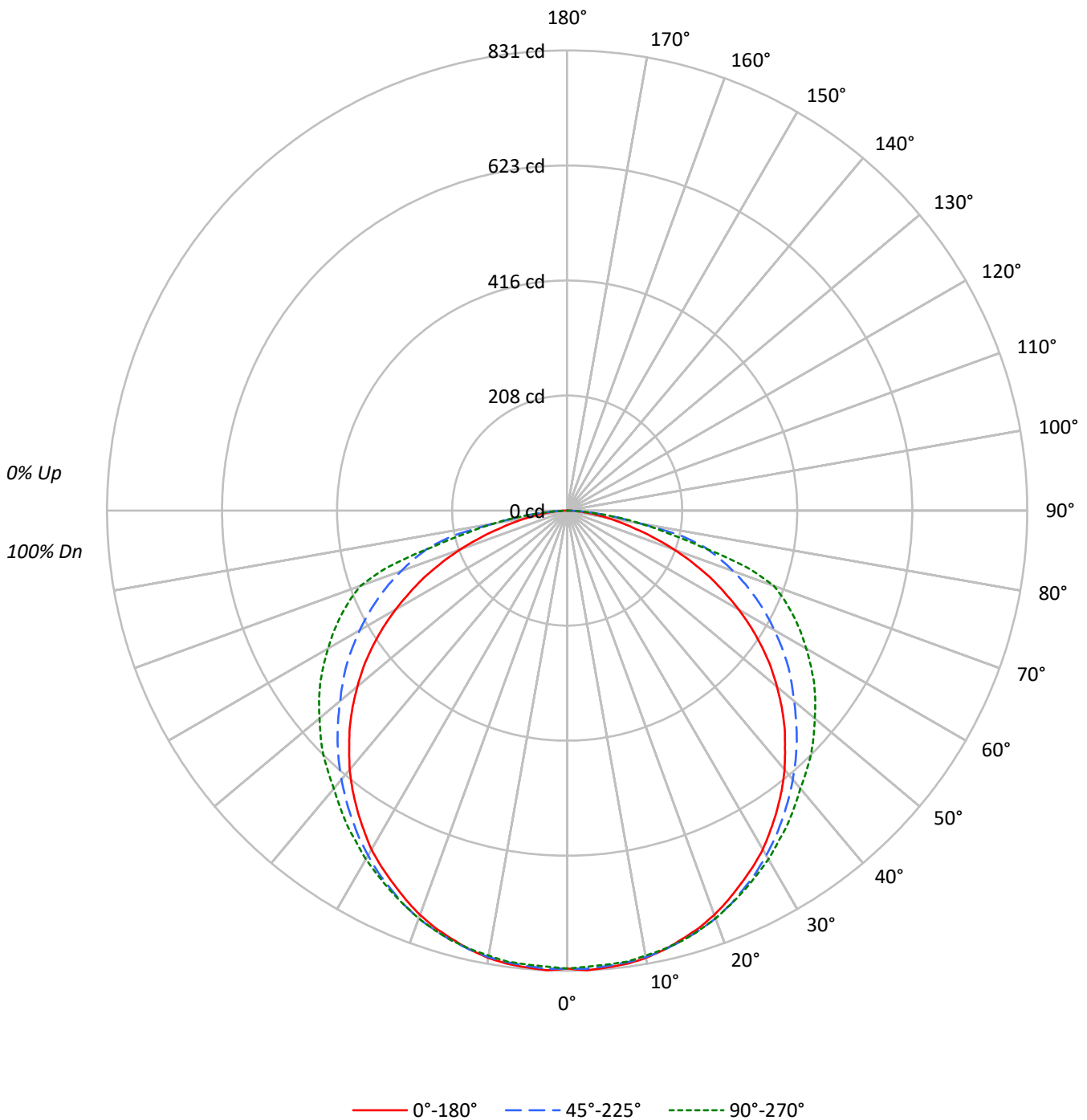
Input Watts (W): 39.91
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	97	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	67	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	51	45	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	29	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	35	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1113	1113	1113
5°	1119	1115	1111
10°	1121	1119	1115
15°	1116	1120	1120
20°	1113	1122	1122
25°	1103	1119	1123
30°	1098	1117	1129
35°	1085	1114	1139
40°	1073	1113	1151
45°	1057	1116	1185
50°	1035	1120	1222
55°	1008	1141	1278
60°	964	1164	1342
65°	904	1200	1437
70°	808	1255	1563
75°	667	1342	1292
80°	545	1037	1047
85°	438	689	647



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.5	3.0
10°-20°	226.6	8.7
20°-30°	346.4	13.2
30°-40°	423.6	16.2
40°-50°	453.3	17.3
50°-60°	434.1	16.6
60°-70°	367.2	14.0
70°-80°	232.8	8.9
80°-90°	53.5	2.0
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°	651.6	24.9
0°-40°	1075.2	41.1
0°-60°	1962.6	75.0
0°-90°	2616.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2616.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	827	827	827	827	827	
5°	828	824	826	824	823	79
15°	801	800	804	804	804	226
25°	743	743	754	757	757	343
35°	661	665	678	688	693	413
45°	555	565	586	611	623	428
55°	430	443	486	527	545	383
65°	284	311	377	428	451	280
75°	128	181	258	257	249	140
85°	28	43	45	40	42	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	827.0	827.0	827.0	827.0	827.0
2.5°	831.0	827.0	828.3	827.0	824.3
5°	828.3	824.3	825.6	824.3	822.9
7.5°	825.6	821.6	822.9	821.6	821.6
10°	820.2	816.2	818.9	817.5	816.2
12.5°	812.1	809.4	812.1	810.8	810.8
15°	801.3	800.0	804.0	804.0	804.0
17.5°	790.5	789.1	794.6	794.6	794.6
20°	777.0	775.6	783.7	783.7	783.7
22.5°	760.8	759.4	770.2	770.2	770.2
25°	743.2	743.2	754.0	756.7	756.7
27.5°	725.6	725.6	737.8	741.9	741.9
30°	706.7	706.7	718.9	724.3	727.0
32.5°	683.7	686.5	700.0	706.7	709.4
35°	660.8	664.8	678.3	687.8	693.2
37.5°	636.5	640.5	656.7	667.5	674.3
40°	610.8	616.2	633.8	647.3	655.4
42.5°	582.4	590.5	610.8	628.3	639.2
45°	555.4	564.8	586.5	610.8	622.9
47.5°	525.6	536.5	560.8	591.9	604.0
50°	494.6	505.4	535.1	570.2	583.8
52.5°	463.5	475.7	510.8	548.6	564.8
55°	429.7	443.2	486.5	527.0	544.6
57.5°	394.6	410.8	459.4	502.7	521.6
60°	358.1	378.4	432.4	478.4	498.6
62.5°	320.3	344.6	405.4	454.0	475.7
65°	283.8	310.8	377.0	428.4	451.3
67.5°	244.6	278.4	348.6	404.0	425.7
70°	205.4	244.6	318.9	375.7	397.3
72.5°	166.2	213.5	289.2	340.5	340.5
75°	128.4	181.1	258.1	256.7	248.6
77.5°	97.3	151.3	212.2	181.1	182.4
80°	70.3	121.6	133.8	133.8	135.1
82.5°	47.3	93.2	86.5	85.1	87.8
85°	28.4	43.2	44.6	40.5	41.9
87.5°	13.5	14.9	12.2	8.1	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)