

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: P230441

Luminaire Tested: **24CZ-LD5-45SE-SQP-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230441
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-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2718.9 lumens
Efficiency: N/A
Efficacy: 68.1 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

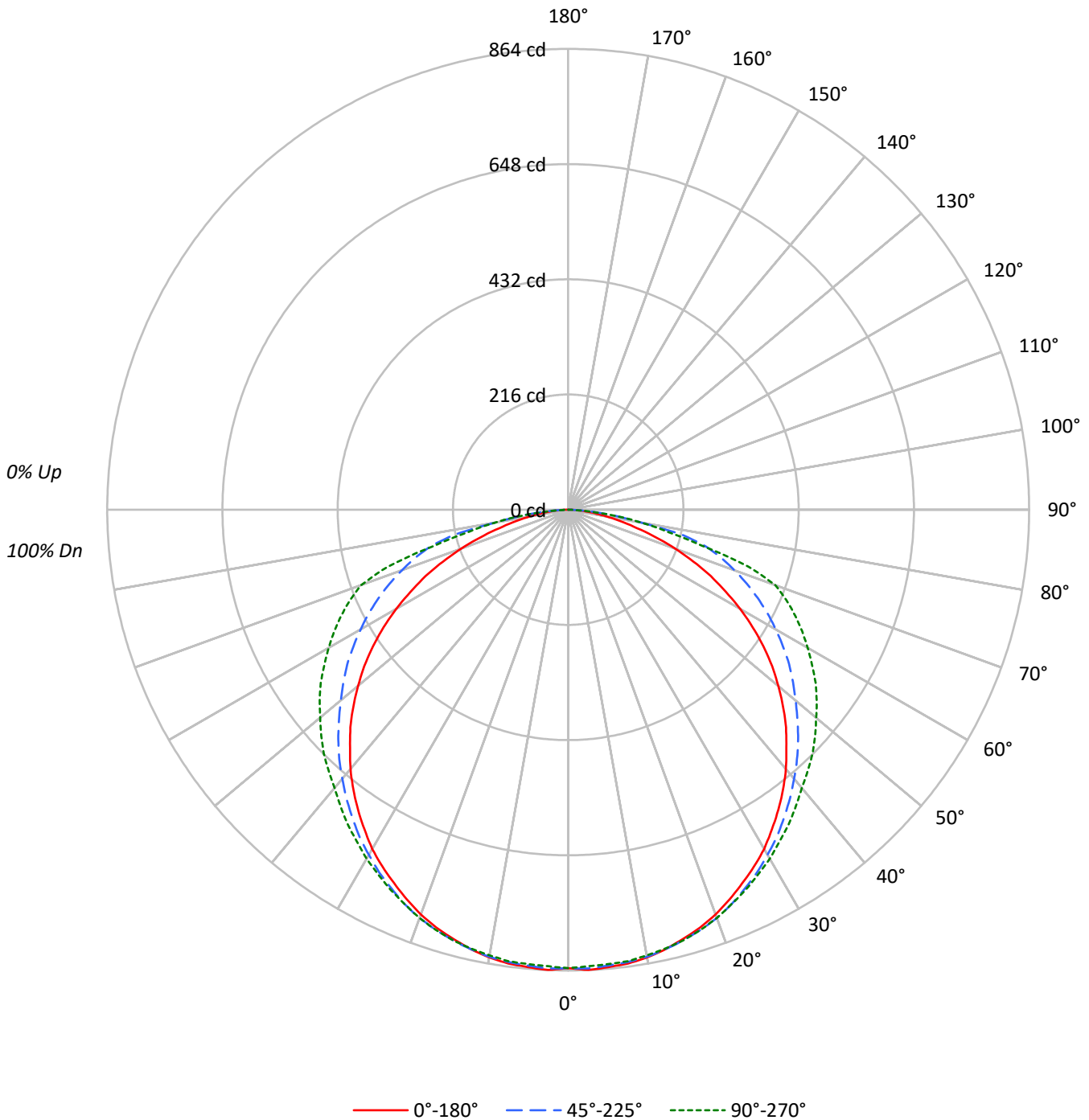
Input Watts (W): 39.91
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230441

CATALOG NUMBER: 24CZ-LD5-45SE-SQP-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230441

CATALOG NUMBER: 24CZ-LD5-45SE-SQP-UNV-L935-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	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°	1156	1156	1156
5°	1163	1159	1155
10°	1165	1163	1159
15°	1160	1164	1164
20°	1156	1166	1166
25°	1147	1163	1168
30°	1141	1161	1174
35°	1128	1158	1183
40°	1115	1157	1196
45°	1098	1160	1232
50°	1076	1164	1270
55°	1048	1186	1328
60°	1002	1209	1394
65°	939	1247	1493
70°	840	1304	1624
75°	693	1394	1343
80°	566	1077	1088
85°	455	715	672



TEST NUMBER: P230441

CATALOG NUMBER: 24CZ-LD5-45SE-SQP-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.6	3.0
10°-20°	235.6	8.7
20°-30°	360.0	13.2
30°-40°	440.3	16.2
40°-50°	471.1	17.3
50°-60°	451.2	16.6
60°-70°	381.6	14.0
70°-80°	241.9	8.9
80°-90°	55.6	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°	677.2	24.9
0°-40°	1117.5	41.1
0°-60°	2039.8	75.0
0°-90°	2718.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2718.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	860	860	860	860	860	
5°	861	857	858	857	855	82
15°	833	831	836	836	836	235
25°	772	772	784	786	786	356
35°	687	691	705	715	720	430
45°	577	587	610	635	648	445
55°	447	461	506	548	566	398
65°	295	323	392	445	469	291
75°	133	188	268	267	258	145
85°	30	45	46	42	44	35
90°	0	0	0	0	0	



TEST NUMBER: P230441

CATALOG NUMBER: 24CZ-LD5-45SE-SQP-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	859.5	859.5	859.5	859.5	859.5
2.5°	863.7	859.5	860.9	859.5	856.7
5°	860.9	856.7	858.1	856.7	855.3
7.5°	858.1	853.9	855.3	853.9	853.9
10°	852.5	848.3	851.1	849.7	848.3
12.5°	844.1	841.3	844.1	842.7	842.7
15°	832.8	831.4	835.6	835.6	835.6
17.5°	821.6	820.2	825.8	825.8	825.8
20°	807.6	806.2	814.6	814.6	814.6
22.5°	790.7	789.3	800.5	800.5	800.5
25°	772.4	772.4	783.7	786.5	786.5
27.5°	754.2	754.2	766.8	771.0	771.0
30°	734.5	734.5	747.2	752.8	755.6
32.5°	710.7	713.5	727.5	734.5	737.3
35°	686.8	691.0	705.0	714.9	720.5
37.5°	661.5	665.7	682.6	693.8	700.8
40°	634.8	640.4	658.7	672.7	681.2
42.5°	605.3	613.7	634.8	653.1	664.3
45°	577.2	587.1	609.5	634.8	647.5
47.5°	546.3	557.6	582.8	615.1	627.8
50°	514.0	525.3	556.2	592.7	606.7
52.5°	481.7	494.4	530.9	570.2	587.1
55°	446.6	460.7	505.6	547.7	566.0
57.5°	410.1	427.0	477.5	522.5	542.1
60°	372.2	393.2	449.4	497.2	518.2
62.5°	332.9	358.1	421.3	471.9	494.4
65°	294.9	323.0	391.8	445.2	469.1
67.5°	254.2	289.3	362.3	419.9	442.4
70°	213.5	254.2	331.5	390.4	412.9
72.5°	172.7	221.9	300.6	353.9	353.9
75°	133.4	188.2	268.2	266.8	258.4
77.5°	101.1	157.3	220.5	188.2	189.6
80°	73.0	126.4	139.0	139.0	140.4
82.5°	49.2	96.9	89.9	88.5	91.3
85°	29.5	44.9	46.3	42.1	43.5
87.5°	14.0	15.4	12.6	8.4	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)