

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: P345091

Luminaire Tested: **24CZ-45SE-L835-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P345091
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1905-313-5)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-45SE-L835-HRP-UNV-CD1-U
Description: CRUZE 2X4 WITH HRP LENS INSERT
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3880.8 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

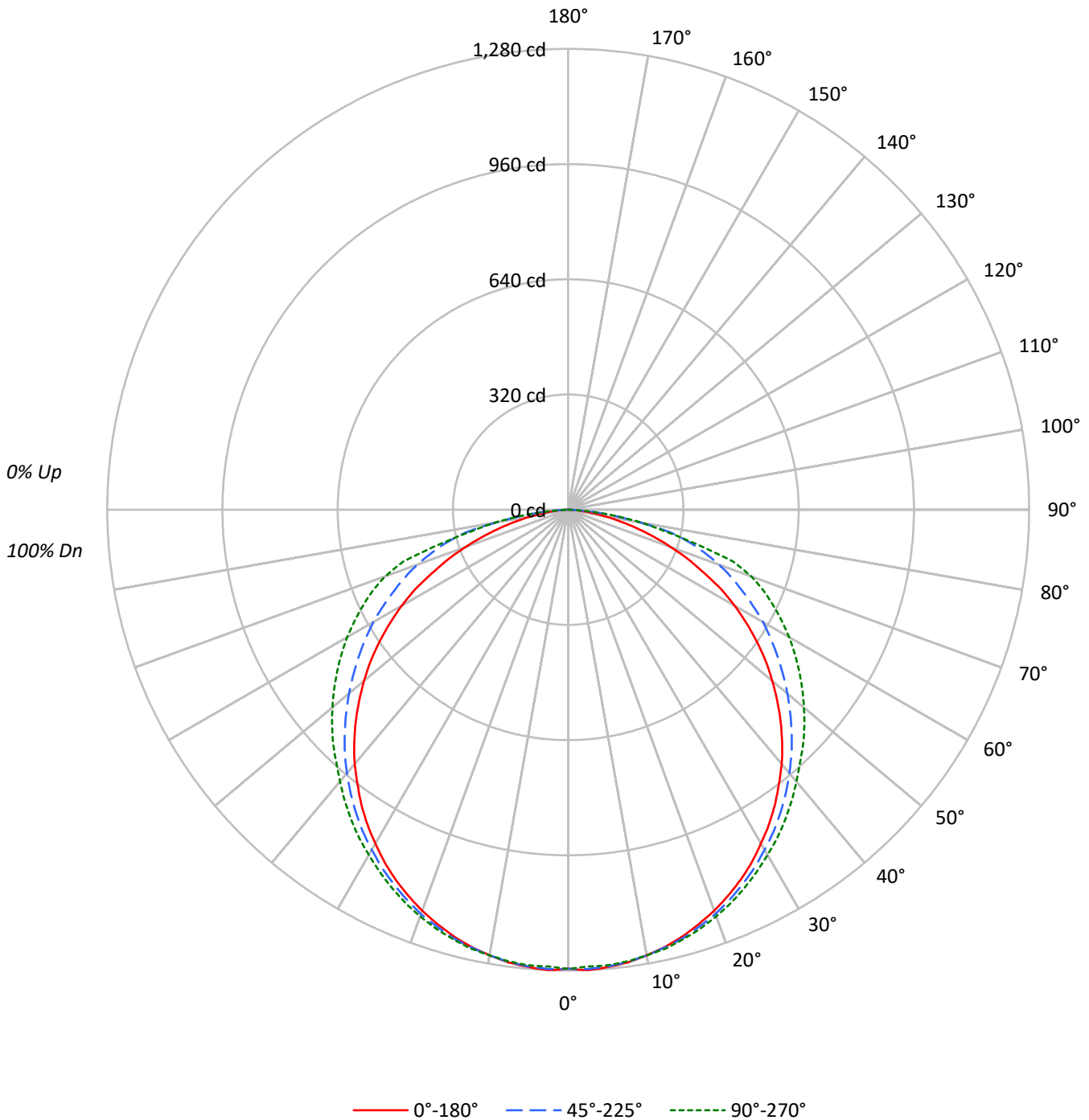
Input Watts (W): 39.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	68	59	52	65	58	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	41	34	48	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	31	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1716	1716	1716
5°	1722	1720	1715
10°	1717	1717	1717
15°	1709	1716	1721
20°	1697	1711	1721
25°	1683	1703	1720
30°	1663	1694	1720
35°	1644	1688	1726
40°	1620	1679	1731
45°	1588	1670	1756
50°	1549	1663	1789
55°	1501	1665	1837
60°	1436	1682	1906
65°	1329	1699	2001
70°	1197	1753	2126
75°	1011	1806	1901
80°	786	1546	1597
85°	565	1053	923



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.9	3.1
10°-20°	347.1	8.9
20°-30°	527.8	13.6
30°-40°	641.2	16.5
40°-50°	676.8	17.4
50°-60°	635.9	16.4
60°-70°	523.5	13.5
70°-80°	329.8	8.5
80°-90°	77.9	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°	995.7	25.7
0°-40°	1636.9	42.2
0°-60°	2949.6	76.0
0°-90°	3880.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3880.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1275	1275	1275	1275	1275	
5°	1275	1268	1273	1272	1270	121
15°	1227	1222	1232	1235	1235	346
25°	1134	1132	1147	1154	1159	522
35°	1001	1006	1027	1041	1051	626
45°	834	848	878	903	923	643
55°	640	663	710	760	783	571
65°	417	457	534	602	628	414
75°	194	254	347	379	366	208
85°	37	62	68	63	60	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1275.1	1275.1	1275.1	1275.1	1275.1
2.5°	1280.1	1271.8	1276.7	1275.1	1270.1
5°	1275.1	1268.4	1273.4	1271.8	1270.1
7.5°	1268.4	1261.8	1266.8	1265.1	1265.1
10°	1256.8	1251.8	1256.8	1256.8	1256.8
12.5°	1243.5	1238.5	1245.2	1246.8	1248.5
15°	1226.9	1221.9	1231.9	1235.2	1235.2
17.5°	1206.9	1203.6	1213.6	1216.9	1220.2
20°	1185.3	1183.7	1195.3	1198.6	1201.9
22.5°	1160.4	1160.4	1172.0	1175.3	1182.0
25°	1133.8	1132.1	1147.1	1153.7	1158.7
27.5°	1103.9	1103.9	1120.5	1128.8	1133.8
30°	1070.6	1073.9	1090.6	1100.5	1107.2
32.5°	1037.4	1040.7	1060.6	1072.3	1080.6
35°	1000.8	1005.8	1027.4	1040.7	1050.7
37.5°	960.9	969.2	992.5	1007.4	1019.1
40°	922.6	929.3	955.9	972.5	985.8
42.5°	879.4	891.1	917.7	937.6	952.6
45°	834.5	847.8	877.8	902.7	922.6
47.5°	788.0	804.6	836.2	869.5	889.4
50°	739.8	758.1	794.6	834.5	854.5
52.5°	691.6	711.5	751.4	798.0	819.6
55°	640.0	663.3	709.9	759.7	783.0
57.5°	586.8	613.4	666.6	723.2	746.4
60°	533.6	561.9	625.1	681.6	708.2
62.5°	478.8	510.4	578.5	643.4	668.3
65°	417.3	457.2	533.6	601.8	628.4
67.5°	360.7	402.3	490.4	558.6	586.8
70°	304.2	352.4	445.5	513.7	540.3
72.5°	247.7	304.2	395.7	465.5	480.4
75°	194.5	254.4	347.4	379.0	365.7
77.5°	143.0	209.5	292.6	276.0	272.6
80°	101.4	166.2	199.5	201.2	206.1
82.5°	64.8	123.0	129.7	131.3	133.0
85°	36.6	61.5	68.2	63.2	59.8
87.5°	16.6	19.9	16.6	11.6	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)