

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: P345090

Luminaire Tested: **24CZ-45SE-L830-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P345090
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-L830-HRP-UNV-CD1-U
Description: CRUZE 2X4 WITH HRP LENS INSERT
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3845.2 lumens
Efficiency: N/A
Efficacy: 96.4 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

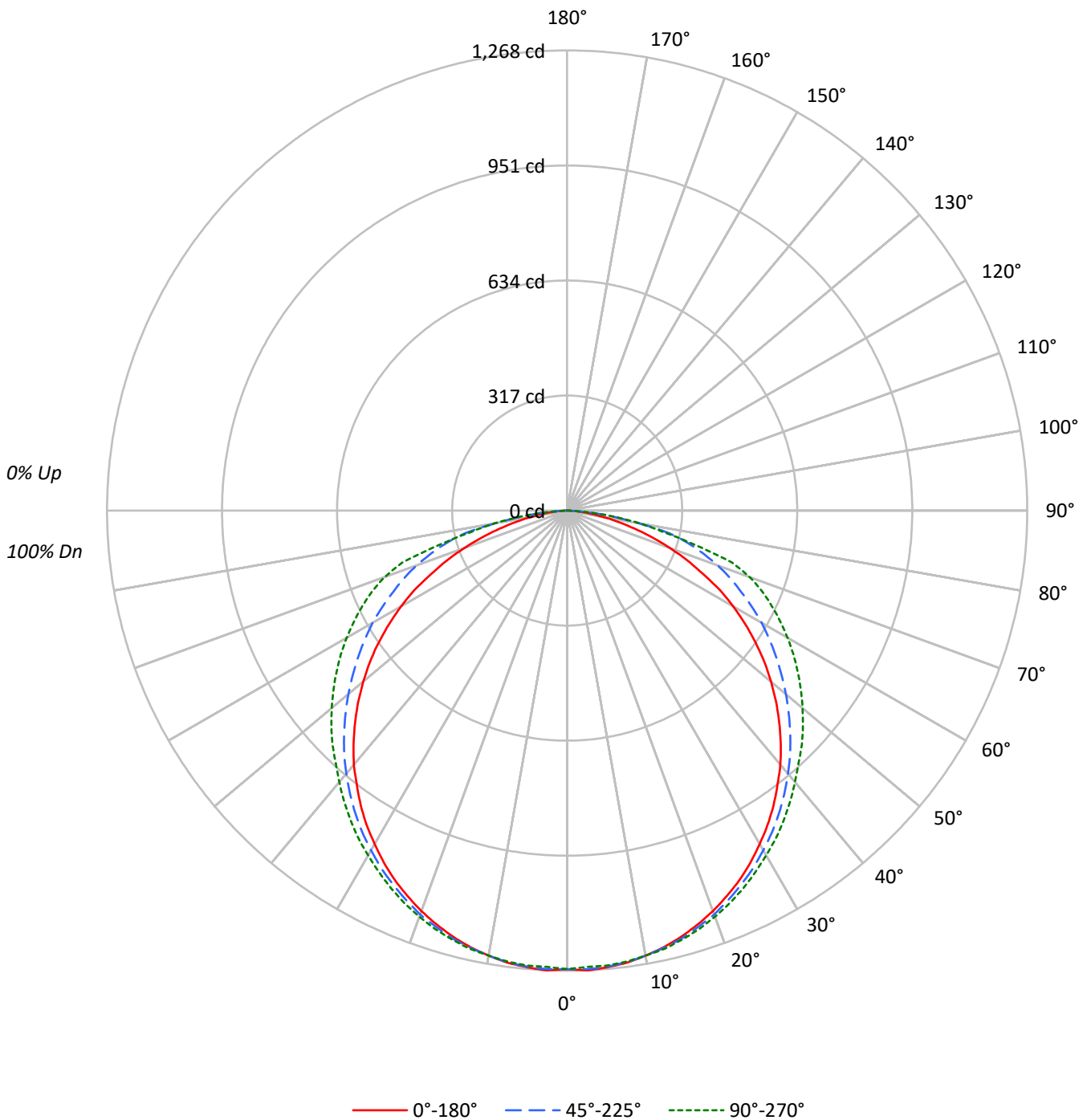
Input Watts (W): 39.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1700	1700	1700
5°	1706	1704	1700
10°	1701	1701	1701
15°	1693	1700	1705
20°	1682	1696	1705
25°	1668	1687	1704
30°	1648	1679	1704
35°	1629	1672	1710
40°	1606	1663	1716
45°	1573	1655	1740
50°	1534	1648	1772
55°	1488	1650	1820
60°	1423	1667	1888
65°	1316	1683	1982
70°	1186	1736	2106
75°	1002	1790	1884
80°	779	1532	1582
85°	559	1042	915



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.8	3.1
10°-20°	343.9	8.9
20°-30°	522.9	13.6
30°-40°	635.3	16.5
40°-50°	670.6	17.4
50°-60°	630.1	16.4
60°-70°	518.7	13.5
70°-80°	326.8	8.5
80°-90°	77.2	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°	986.5	25.7
0°-40°	1621.9	42.2
0°-60°	2922.5	76.0
0°-90°	3845.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3845.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1263	1263	1263	1263	1263	
5°	1263	1257	1262	1260	1258	120
15°	1216	1211	1220	1224	1224	343
25°	1123	1122	1136	1143	1148	517
35°	992	996	1018	1031	1041	620
45°	827	840	870	894	914	638
55°	634	657	703	753	776	566
65°	413	453	529	596	623	411
75°	193	252	344	376	362	206
85°	36	61	68	63	59	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1263.4	1263.4	1263.4	1263.4	1263.4
2.5°	1268.3	1260.1	1265.0	1263.4	1258.4
5°	1263.4	1256.8	1261.7	1260.1	1258.4
7.5°	1256.8	1250.2	1255.1	1253.5	1253.5
10°	1245.3	1240.3	1245.3	1245.3	1245.3
12.5°	1232.1	1227.1	1233.7	1235.4	1237.0
15°	1215.6	1210.7	1220.5	1223.8	1223.8
17.5°	1195.8	1192.5	1202.4	1205.7	1209.0
20°	1174.4	1172.8	1184.3	1187.6	1190.9
22.5°	1149.7	1149.7	1161.2	1164.5	1171.1
25°	1123.4	1121.7	1136.5	1143.1	1148.1
27.5°	1093.7	1093.7	1110.2	1118.4	1123.4
30°	1060.8	1064.1	1080.5	1090.4	1097.0
32.5°	1027.8	1031.1	1050.9	1062.4	1070.7
35°	991.6	996.5	1017.9	1031.1	1041.0
37.5°	952.1	960.3	983.4	998.2	1009.7
40°	914.2	920.8	947.1	963.6	976.8
42.5°	871.3	882.9	909.2	929.0	943.8
45°	826.9	840.1	869.7	894.4	914.2
47.5°	780.8	797.2	828.5	861.5	881.2
50°	733.0	751.1	787.3	826.9	846.6
52.5°	685.2	705.0	744.5	790.6	812.0
55°	634.2	657.2	703.3	752.8	775.8
57.5°	581.4	607.8	660.5	716.5	739.6
60°	528.7	556.7	619.3	675.3	701.7
62.5°	474.4	505.7	573.2	637.5	662.2
65°	413.4	453.0	528.7	596.3	622.6
67.5°	357.4	398.6	485.9	553.4	581.4
70°	301.4	349.2	441.4	509.0	535.3
72.5°	245.4	301.4	392.0	461.2	476.0
75°	192.7	252.0	344.3	375.6	362.4
77.5°	141.7	207.5	289.9	273.4	270.1
80°	100.5	164.7	197.7	199.3	204.2
82.5°	64.2	121.9	128.5	130.1	131.8
85°	36.2	60.9	67.5	62.6	59.3
87.5°	16.5	19.8	16.5	11.5	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)