

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: P345092

Luminaire Tested: **24CZ-45SE-L840-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P345092
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-L840-HRP-UNV-CD1-U
Description: CRUZE 2X4 WITH HRP LENS INSERT
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3958.1 lumens
Efficiency: N/A
Efficacy: 99.2 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

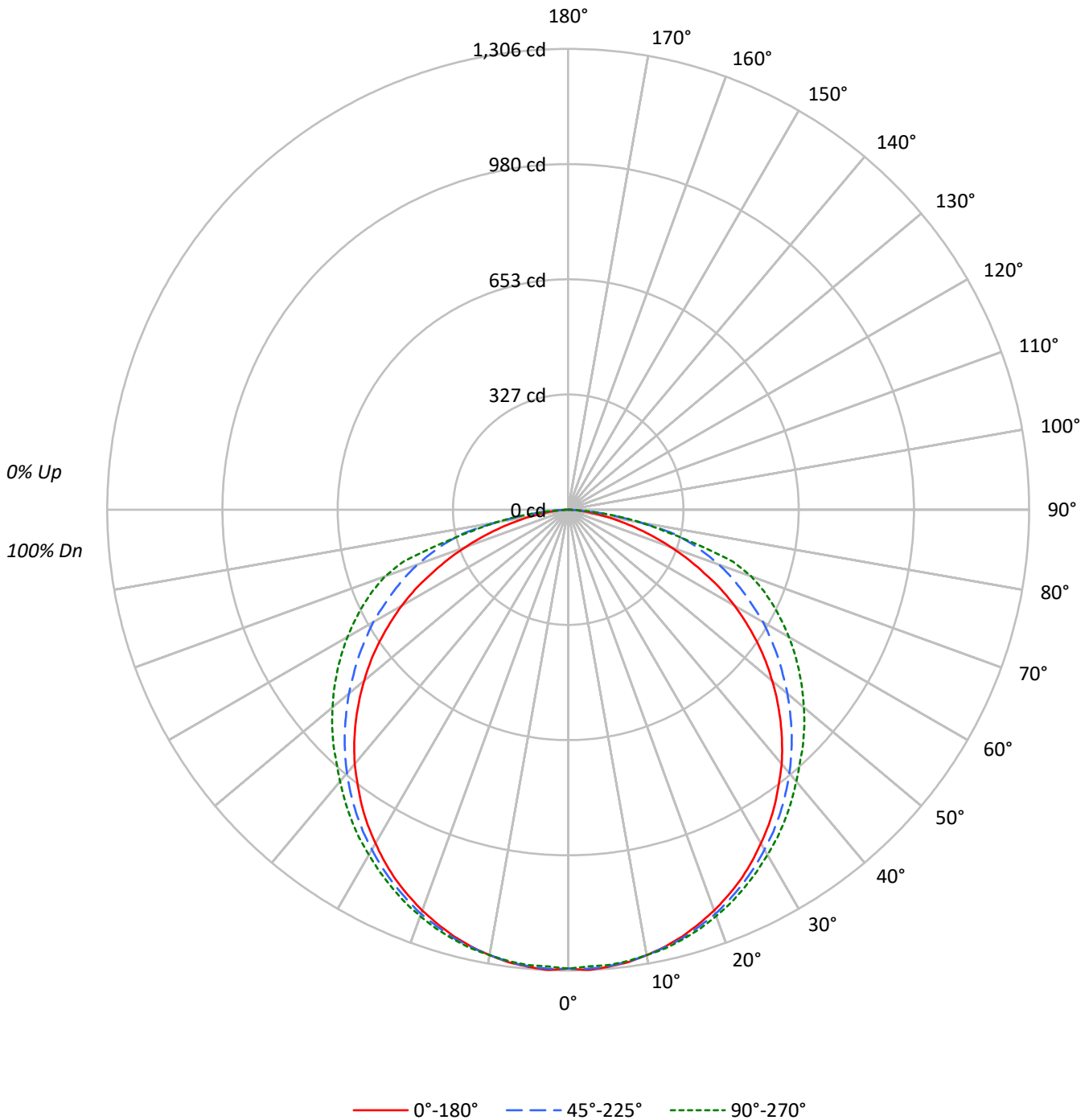
Input Watts (W): 39.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1750	1750	1750
5°	1756	1754	1750
10°	1751	1751	1751
15°	1743	1750	1755
20°	1731	1746	1755
25°	1717	1737	1754
30°	1696	1728	1754
35°	1677	1721	1760
40°	1653	1712	1766
45°	1620	1703	1791
50°	1579	1697	1824
55°	1531	1698	1873
60°	1465	1715	1944
65°	1355	1733	2040
70°	1221	1788	2168
75°	1031	1842	1939
80°	801	1577	1629
85°	576	1073	942



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.3	3.1
10°-20°	354.0	8.9
20°-30°	538.3	13.6
30°-40°	654.0	16.5
40°-50°	690.2	17.4
50°-60°	648.6	16.4
60°-70°	534.0	13.5
70°-80°	336.4	8.5
80°-90°	79.4	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°	1015.5	25.7
0°-40°	1669.5	42.2
0°-60°	3008.3	76.0
0°-90°	3958.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3958.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1300	1300	1300	1300	1300	
5°	1300	1294	1299	1297	1295	124
15°	1251	1246	1256	1260	1260	353
25°	1156	1155	1170	1177	1182	533
35°	1021	1026	1048	1061	1072	638
45°	851	865	895	921	941	656
55°	653	676	724	775	799	583
65°	426	466	544	614	641	423
75°	198	259	354	387	373	212
85°	37	63	70	64	61	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1300.5	1300.5	1300.5	1300.5	1300.5
2.5°	1305.6	1297.1	1302.2	1300.5	1295.4
5°	1300.5	1293.7	1298.8	1297.1	1295.4
7.5°	1293.7	1286.9	1292.0	1290.3	1290.3
10°	1281.8	1276.7	1281.8	1281.8	1281.8
12.5°	1268.2	1263.2	1269.9	1271.6	1273.3
15°	1251.3	1246.2	1256.4	1259.8	1259.8
17.5°	1230.9	1227.6	1237.7	1241.1	1244.5
20°	1208.9	1207.2	1219.1	1222.5	1225.9
22.5°	1183.5	1183.5	1195.3	1198.7	1205.5
25°	1156.3	1154.6	1169.9	1176.7	1181.8
27.5°	1125.8	1125.8	1142.8	1151.3	1156.3
30°	1091.9	1095.3	1112.3	1122.4	1129.2
32.5°	1058.0	1061.4	1081.7	1093.6	1102.1
35°	1020.7	1025.8	1047.8	1061.4	1071.6
37.5°	980.0	988.5	1012.2	1027.5	1039.4
40°	941.0	947.8	974.9	991.9	1005.4
42.5°	896.9	908.8	935.9	956.3	971.5
45°	851.2	864.7	895.2	920.7	941.0
47.5°	803.7	820.6	852.8	886.8	907.1
50°	754.5	773.2	810.5	851.2	871.5
52.5°	705.3	725.7	766.4	813.8	835.9
55°	652.8	676.5	724.0	774.9	798.6
57.5°	598.5	625.6	679.9	737.6	761.3
60°	544.3	573.1	637.5	695.2	722.3
62.5°	488.3	520.5	590.0	656.2	681.6
65°	425.6	466.3	544.3	613.8	640.9
67.5°	367.9	410.3	500.2	569.7	598.5
70°	310.3	359.5	454.4	523.9	551.0
72.5°	252.6	310.3	403.5	474.7	490.0
75°	198.4	259.4	354.4	386.6	373.0
77.5°	145.8	213.6	298.4	281.5	278.1
80°	103.4	169.6	203.5	205.2	210.2
82.5°	66.1	125.5	132.3	133.9	135.6
85°	37.3	62.7	69.5	64.4	61.0
87.5°	17.0	20.3	17.0	11.9	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)