

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: P393508

Luminaire Tested: **24EN-LD2-45-UNV-L82765-W2A-1-U (3500K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393508
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-563-34)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24EN-LD2-45-UNV-L82765-W2A-1-U (3500K)
Description: 2X4 ENCOUNTER, 4500 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 3000K/5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4339.2 lumens
Efficiency: N/A
Efficacy: 136.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

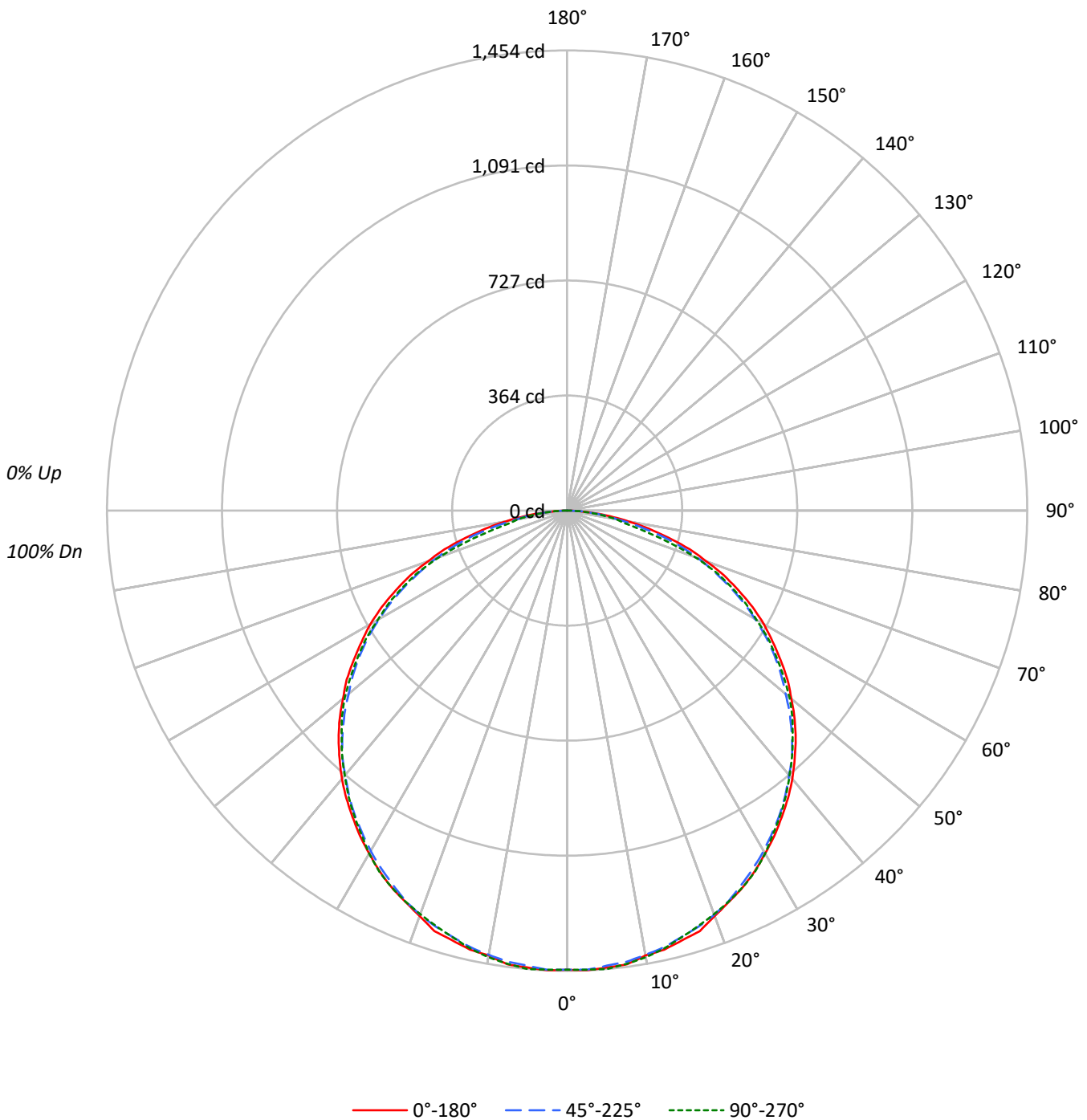
Input Watts (W): 31.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1952	1952	1952
5°	1957	1949	1964
10°	1950	1947	1958
15°	1958	1943	1945
20°	1951	1946	1943
25°	1950	1936	1949
30°	1944	1929	1944
35°	1941	1924	1929
40°	1945	1916	1920
45°	1943	1910	1917
50°	1935	1887	1919
55°	1931	1877	1893
60°	1932	1845	1861
65°	1903	1797	1827
70°	1837	1733	1692
75°	1718	1590	1325
80°	1519	1277	1226
85°	1243	1125	1024



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.5	3.2
10°-20°	394.9	9.1
20°-30°	602.5	13.9
30°-40°	735.0	16.9
40°-50°	777.9	17.9
50°-60°	721.5	16.6
60°-70°	567.2	13.1
70°-80°	317.9	7.3
80°-90°	84.9	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°	1134.8	26.2
0°-40°	1869.8	43.1
0°-60°	3369.3	77.6
0°-90°	4339.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4339.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1451	1451	1451	1451	1451	
5°	1449	1446	1443	1442	1454	138
15°	1406	1400	1395	1398	1396	397
25°	1314	1307	1304	1305	1313	605
35°	1182	1178	1172	1172	1174	740
45°	1021	1014	1004	1001	1008	787
55°	823	814	800	801	807	737
65°	598	582	564	568	574	591
75°	330	323	306	268	255	351
85°	80	74	73	69	66	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1451.0	1451.0	1451.0	1451.0	1451.0
2.5°	1453.8	1449.1	1451.9	1446.2	1451.9
5°	1449.1	1446.2	1443.4	1442.5	1453.8
7.5°	1446.2	1440.6	1437.7	1434.9	1444.3
10°	1427.3	1429.2	1425.4	1426.4	1433.0
12.5°	1420.7	1415.0	1413.1	1413.1	1416.9
15°	1405.5	1399.8	1395.1	1397.9	1396.0
17.5°	1393.2	1378.1	1379.0	1379.0	1376.2
20°	1362.9	1356.3	1359.1	1354.4	1357.2
22.5°	1337.3	1333.5	1334.5	1329.7	1336.4
25°	1313.6	1307.0	1304.2	1305.1	1312.7
27.5°	1284.3	1277.7	1273.9	1272.9	1286.2
30°	1251.1	1246.4	1241.7	1241.7	1251.1
32.5°	1218.9	1212.3	1206.6	1205.7	1211.4
35°	1182.0	1178.2	1171.6	1171.6	1174.4
37.5°	1146.0	1138.4	1132.7	1133.7	1135.6
40°	1107.2	1099.6	1091.1	1091.1	1093.0
42.5°	1064.6	1057.9	1052.2	1048.5	1052.2
45°	1021.0	1014.4	1003.9	1001.1	1007.7
47.5°	975.5	967.0	954.7	956.6	965.1
50°	924.4	915.9	901.7	906.4	916.8
52.5°	878.0	867.6	852.4	857.1	861.9
55°	823.0	813.6	800.3	801.3	806.9
57.5°	770.0	759.6	745.4	744.4	753.0
60°	717.9	703.7	685.7	686.7	691.4
62.5°	660.1	645.0	627.0	627.0	635.5
65°	597.6	581.5	564.5	568.3	574.0
67.5°	537.0	516.2	501.0	502.9	509.5
70°	466.9	452.7	440.4	433.8	430.0
72.5°	405.4	385.5	376.0	352.3	344.7
75°	330.5	323.0	305.9	268.0	254.8
77.5°	264.2	256.7	233.9	193.2	185.6
80°	196.1	197.9	164.8	158.2	158.2
82.5°	137.3	131.6	120.3	114.6	111.8
85°	80.5	73.9	72.9	69.1	66.3
87.5°	26.5	30.3	29.4	30.3	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)