

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: NEO-RAY

Report Number: P199419

Luminaire Tested: **S122-DIW-U2-LO-40-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199419
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27883 P27986)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122-DIW-U2-LO-40-0048-1D-UDD-1-NA-W
Description: DEFINE 2-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL2-4000K, NO LENS
DOWNLIGHT LLO-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

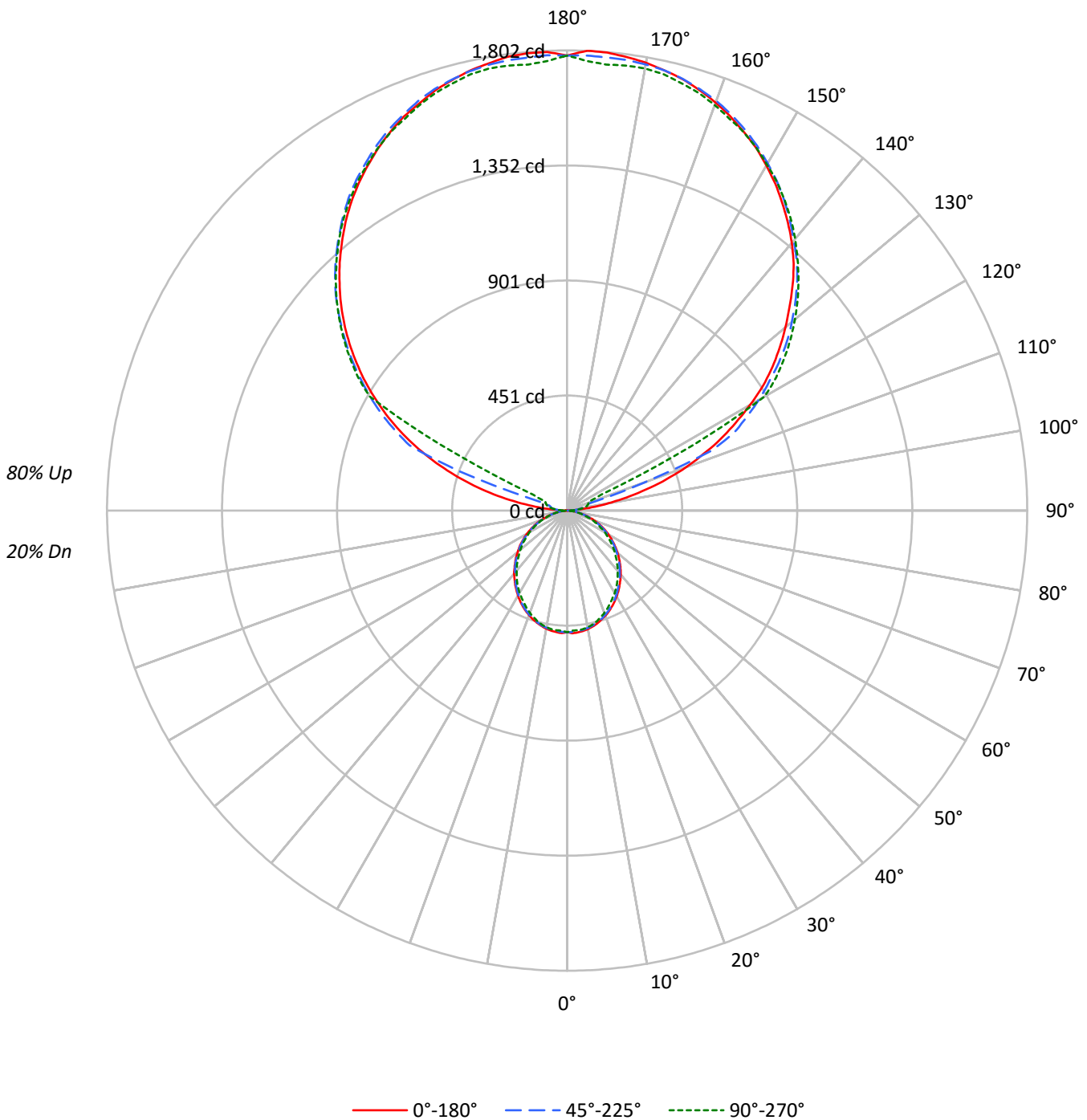
Lumens per Lamp: N/A
Luminaire Lumens: 6281.7 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

Input Watts (W): 52.3
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

TEST NUMBER: P199419

CATALOG NUMBER: S122-DIW-U2-LO-40-0048-1D-UDD-1-NA-W

Luminous Intensity Polar Plot





TEST NUMBER: P199419

CATALOG NUMBER: S122-DIW-U2-LO-40-0048-1D-UDD-1-NA-W

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	100	100	100	100	88	88	88	88	66	66	66	46	46	46	28	28	28	20
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	25	24	24	16
2	83	76	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	67	60	54	66	59	53	49	45	41	38	32	29	27	19	18	17	12
4	69	59	51	46	61	52	46	41	40	35	32	28	25	23	17	16	15	10
5	63	52	44	39	55	46	40	35	35	31	27	25	22	20	15	14	13	9
6	58	47	39	33	51	41	35	30	32	27	24	23	20	17	14	12	11	8
7	53	42	34	29	47	37	31	26	29	24	21	20	17	15	13	11	10	7
8	49	38	30	25	44	34	27	23	26	21	18	19	16	13	12	10	9	6
9	46	34	27	22	40	31	24	20	24	19	16	17	14	12	11	9	8	5
10	43	31	24	20	38	28	22	18	22	17	14	16	13	11	10	8	7	5

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7535	7535	7535
5°	7543	6241	7532
10°	7441	5329	7423
15°	7300	4584	7271
20°	7135	3945	7098
25°	6936	3404	6900
30°	6734	2959	6677
35°	6489	2560	6429
40°	6251	2202	6194
45°	6000	1884	5894
50°	5720	1598	5598
55°	5407	1338	5317
60°	5087	1097	4956
65°	4699	862	4540
70°	4217	648	4014
75°	3523	436	3286
80°	2623	254	2384
85°	1629	100	1372



TEST NUMBER: P199419

CATALOG NUMBER: S122-DIW-U2-LO-40-0048-1D-UDD-1-NA-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.9	0.7
10°-20°	127.1	2.0
20°-30°	187.5	3.0
30°-40°	218.7	3.5
40°-50°	219.1	3.5
50°-60°	191.7	3.1
60°-70°	141.0	2.2
70°-80°	76.5	1.2
80°-90°	19.6	0.3
90°-100°	43.7	0.7
100°-110°	200.1	3.2
110°-120°	581.6	9.3
120°-130°	908.8	14.5
130°-140°	979.7	15.6
140°-150°	925.9	14.7
150°-160°	755.0	12.0
160°-170°	491.4	7.8
170°-180°	169.3	2.7
0°-30°	359.6	5.7
0°-40°	578.3	9.2
0°-60°	989.1	15.7
0°-90°	1226.2	19.5
90°-120°	825.4	13.1
90°-150°	3639.8	57.9
90°-180°	5056.0	80.5
0°-180°	6281.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	476	476	476	476	476	
5°	479	473	470	473	478	45
15°	457	453	449	452	455	129
25°	414	410	400	409	412	191
35°	358	353	342	350	354	224
45°	293	288	274	285	288	226
55°	222	218	204	214	218	199
65°	150	144	134	140	145	149
75°	77	74	67	69	72	82
85°	18	17	15	15	16	21
90°	1	2	3	2	0	2
95°	43	35	40	41	75	61
105°	321	68	83	70	378	341
115°	664	720	147	744	710	654
125°	982	1013	1037	1029	1006	875
135°	1249	1274	1281	1285	1260	963
145°	1469	1482	1484	1493	1474	920
155°	1636	1646	1635	1648	1637	755
165°	1749	1750	1732	1747	1745	494
175°	1800	1781	1753	1781	1797	171
180°	1782	1782	1782	1782	1782	



TEST NUMBER: P199419

CATALOG NUMBER: S122-DIW-U2-LO-40-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	476.4	476.4	476.4	476.4	476.4	476.4	476.4	476.4	476.4
2.5°	481.2	474.5	475.6	474.2	470.5	473.8	475.3	474.2	480.4
5°	478.9	472.3	473.4	471.6	470.5	471.6	473.1	471.6	478.2
7.5°	476.0	468.6	470.8	469.7	468.6	469.4	470.5	467.9	474.9
10°	470.8	463.5	466.8	464.6	463.5	464.2	466.1	462.4	469.7
12.5°	464.9	457.6	460.9	458.3	457.2	457.2	460.5	456.5	463.1
15°	456.8	450.9	453.2	450.6	448.7	449.8	452.4	449.5	455.0
17.5°	447.6	442.5	445.1	441.0	437.7	440.3	443.9	440.6	446.2
20°	438.1	432.2	434.7	429.2	426.3	428.5	433.3	430.7	435.8
22.5°	427.4	421.8	424.1	416.7	413.7	415.6	422.6	420.0	424.8
25°	414.5	410.1	410.4	403.1	399.7	401.9	409.3	407.8	412.3
27.5°	401.9	397.5	397.9	389.4	385.7	388.7	396.1	394.9	399.0
30°	388.3	384.3	383.9	375.4	372.5	374.3	381.7	381.7	385.0
32.5°	373.2	369.9	368.1	360.3	357.4	359.6	365.8	366.9	369.5
35°	357.7	355.5	352.9	345.6	341.5	344.5	350.4	351.8	354.4
37.5°	342.3	339.7	336.7	329.4	324.9	328.6	333.8	336.4	338.2
40°	326.1	324.2	320.9	313.5	308.0	311.7	317.6	320.5	323.1
42.5°	309.5	308.4	304.3	296.6	291.1	295.1	301.4	303.9	305.1
45°	292.9	291.4	287.7	279.6	273.7	278.2	284.8	287.4	287.7
47.5°	274.5	274.8	270.4	262.3	256.4	260.8	266.7	270.4	271.9
50°	257.9	258.3	253.1	245.0	239.1	242.4	249.4	253.1	252.4
52.5°	240.2	241.3	235.8	227.7	221.8	225.1	232.1	236.2	236.5
55°	221.8	223.6	217.7	209.6	204.5	207.8	213.7	218.5	218.1
57.5°	204.1	205.6	199.7	192.3	187.2	190.1	195.3	201.5	200.1
60°	186.4	187.9	181.6	174.3	169.8	171.3	177.2	182.4	181.6
62.5°	168.4	169.8	163.2	156.6	151.4	153.6	158.8	165.1	163.2
65°	150.3	151.4	144.4	138.5	134.1	136.3	140.0	146.6	145.2
67.5°	132.3	133.0	126.7	121.2	117.5	118.6	121.9	127.5	126.7
70°	114.2	114.9	109.1	103.9	100.6	101.7	104.3	109.4	108.7
72.5°	95.8	96.9	91.0	86.2	82.9	84.0	85.8	90.6	89.5
75°	77.4	78.1	73.7	70.0	67.1	67.4	68.9	72.6	72.2
77.5°	60.4	62.3	57.5	54.2	51.9	52.3	54.2	56.0	55.3
80°	43.8	46.1	42.7	40.2	38.3	37.9	39.4	40.9	39.8
82.5°	30.9	31.3	29.1	27.3	25.4	25.4	26.5	27.6	26.5
85°	18.4	19.2	17.3	15.8	14.7	14.4	15.1	16.2	15.5
87.5°	8.8	9.2	7.4	6.6	5.5	5.2	5.5	6.3	6.3
90°	0.7	1.8	1.8	2.2	2.6	2.6	2.2	2.2	0.4
92.5°	6.2	14.5	14.5	17.5	18.6	21.7	24.8	25.8	27.9
95°	43.4	31.0	35.1	38.2	40.3	43.4	41.3	38.2	75.4
97.5°	97.0	39.2	49.5	51.6	54.7	55.7	55.7	43.4	137.3
100°	162.1	45.4	58.8	67.1	69.2	69.2	63.0	97.0	211.6
102.5°	238.5	202.3	64.0	74.3	78.5	75.4	67.1	329.3	294.2
105°	321.0	364.4	68.1	78.5	82.6	80.5	70.2	405.7	377.8
107.5°	407.8	441.8	72.3	82.6	86.7	83.6	85.7	484.1	461.4
110°	494.5	523.4	324.1	85.7	89.8	85.7	449.0	563.6	545.0



TEST NUMBER: P199419

CATALOG NUMBER: S122-DIW-U2-LO-40-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	577.0	607.0	609.0	90.8	91.9	98.1	667.9	644.1	628.7
115°	663.8	688.5	720.5	419.1	146.6	461.4	744.3	723.6	710.2
117.5°	743.2	767.0	791.8	737.0	561.6	802.1	817.6	802.1	788.7
120°	826.9	850.6	866.1	890.9	892.9	892.9	889.8	877.4	863.0
122.5°	909.4	924.9	937.3	962.1	970.3	961.1	959.0	947.6	936.3
125°	981.7	996.1	1012.7	1029.2	1037.4	1028.1	1029.2	1014.7	1006.5
127.5°	1049.8	1062.2	1083.9	1094.2	1102.5	1092.2	1096.3	1080.8	1074.6
130°	1115.9	1124.2	1148.9	1157.2	1164.4	1158.2	1161.3	1144.8	1139.6
132.5°	1180.9	1192.3	1212.9	1216.0	1224.3	1215.0	1226.3	1203.6	1201.6
135°	1249.1	1258.3	1273.8	1274.9	1281.1	1275.9	1285.2	1266.6	1260.4
137.5°	1313.1	1317.2	1330.6	1326.5	1335.8	1327.5	1340.9	1322.3	1318.2
140°	1368.8	1371.9	1381.2	1383.3	1389.4	1382.2	1392.5	1374.0	1371.9
142.5°	1420.4	1424.5	1432.8	1431.8	1439.0	1431.8	1444.2	1427.6	1425.6
145°	1468.9	1475.1	1482.4	1479.3	1484.4	1480.3	1492.7	1475.1	1474.1
147.5°	1517.5	1519.5	1529.8	1524.7	1527.8	1522.6	1536.0	1521.6	1519.5
150°	1559.8	1563.9	1570.1	1563.9	1564.9	1561.8	1575.3	1562.9	1560.8
152.5°	1602.1	1601.1	1610.4	1598.0	1603.1	1598.0	1613.5	1601.1	1601.1
155°	1636.2	1635.1	1646.5	1633.1	1635.1	1631.0	1648.5	1634.1	1637.2
157.5°	1670.2	1665.1	1678.5	1665.1	1660.9	1664.0	1677.5	1664.0	1670.2
160°	1700.2	1695.0	1707.4	1692.9	1689.8	1691.9	1706.4	1694.0	1696.0
162.5°	1726.0	1718.7	1730.1	1714.6	1714.6	1711.5	1730.1	1717.7	1723.9
165°	1748.7	1740.4	1749.7	1734.2	1732.2	1730.1	1746.6	1738.4	1744.6
167.5°	1765.2	1756.9	1765.2	1747.6	1749.7	1745.6	1762.1	1756.9	1764.2
170°	1780.7	1770.4	1773.5	1758.0	1758.0	1754.9	1772.4	1767.3	1777.6
172.5°	1791.0	1779.6	1779.6	1762.1	1758.0	1760.0	1778.6	1777.6	1792.0
175°	1800.3	1784.8	1780.7	1764.2	1752.8	1763.1	1780.7	1783.8	1797.2
177.5°	1802.4	1787.9	1783.8	1765.2	1762.1	1763.1	1784.8	1785.8	1797.2
180°	1781.7	1781.7	1781.7	1781.7	1781.7	1781.7	1781.7	1781.7	1781.7

(END OF REPORT)