

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: P199403

Luminaire Tested: **S122-DIW-U2-1-30-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199403
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-U2-1-30-0048-1D-UDD-1-NA-W
Description: DEFINE 2-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL2-3000K, NO LENS
DOWNLIGHT LL1-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

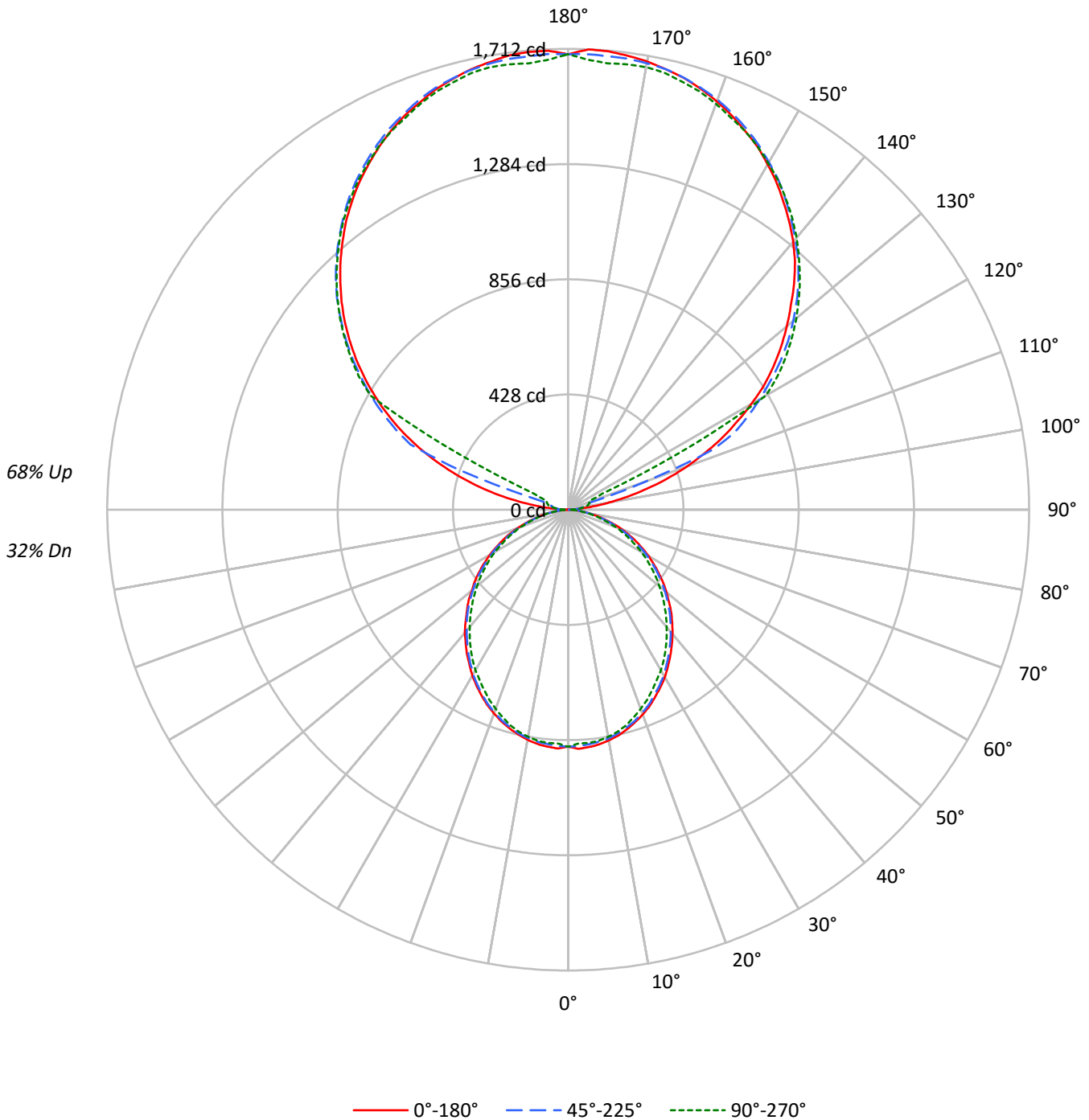
Lumens per Lamp: N/A
Luminaire Lumens: 7066.8 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

Input Watts (W): 65.5
Input Voltage (V): NR
Input Current (A_{in}): 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	103	103	103	103	93	93	93	93	73	73	73	56	56	56	40	40	40	32
1	94	90	86	82	84	81	78	75	64	62	60	49	48	46	35	34	33	27
2	85	78	72	67	77	71	66	61	56	53	50	43	41	39	31	29	28	23
3	78	69	62	56	70	62	56	51	50	45	42	38	35	33	27	26	24	19
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	24	22	21	16
5	65	54	46	40	58	49	42	37	39	34	31	30	27	24	22	20	18	14
6	60	48	40	35	54	44	37	32	35	30	26	27	24	21	20	18	16	13
7	55	43	36	30	50	39	33	28	32	27	23	25	21	19	18	16	14	11
8	51	39	32	27	46	36	29	25	29	24	21	23	19	16	17	14	13	10
9	48	36	29	24	43	33	26	22	27	22	18	21	17	15	15	13	11	9
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	13923	13923	13923
5°	13940	11533	13918
10°	13751	9848	13720
15°	13491	8472	13437
20°	13184	7289	13117
25°	12817	6291	12750
30°	12446	5468	12340
35°	11993	4731	11883
40°	11549	4069	11446
45°	11089	3482	10892
50°	10570	2954	10344
55°	9992	2473	9826
60°	9402	2028	9159
65°	8686	1592	8386
70°	7795	1197	7415
75°	6508	806	6071
80°	4851	469	4402
85°	3010	185	2532



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.0	1.2
10°-20°	235.0	3.3
20°-30°	346.5	4.9
30°-40°	404.1	5.7
40°-50°	405.0	5.7
50°-60°	354.3	5.0
60°-70°	260.6	3.7
70°-80°	141.3	2.0
80°-90°	36.2	0.5
90°-100°	41.7	0.6
100°-110°	190.0	2.7
110°-120°	552.3	7.8
120°-130°	862.9	12.2
130°-140°	930.3	13.2
140°-150°	879.2	12.4
150°-160°	717.0	10.1
160°-170°	466.6	6.6
170°-180°	160.8	2.3
0°-30°	664.5	9.4
0°-40°	1068.6	15.1
0°-60°	1827.8	25.9
0°-90°	2266.0	32.1
90°-120°	784.0	11.1
90°-150°	3456.5	48.9
90°-180°	4801.0	67.9
0°-180°	7066.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	880	880	880	880	880	
5°	885	875	869	874	884	84
15°	844	837	829	836	841	238
25°	766	758	739	756	762	353
35°	661	652	631	648	655	414
45°	541	532	506	526	532	417
55°	410	402	378	395	403	367
65°	278	267	248	259	268	275
75°	143	136	124	127	133	152
85°	34	32	27	28	29	38
90°	1	3	5	4	1	3
95°	41	33	38	39	72	58
105°	305	65	78	67	359	324
115°	630	684	139	707	674	621
125°	932	962	985	977	956	831
135°	1186	1210	1216	1220	1197	914
145°	1395	1408	1410	1417	1400	873
155°	1554	1564	1553	1565	1555	717
165°	1660	1662	1645	1658	1657	469
175°	1710	1691	1664	1691	1707	162
180°	1692	1692	1692	1692	1692	



TEST NUMBER: P199403

CATALOG NUMBER: S122-DIW-U2-1-30-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	880.3	880.3	880.3	880.3	880.3	880.3	880.3	880.3	880.3
2.5°	889.2	876.9	879.0	876.2	869.4	875.5	878.3	876.2	887.8
5°	885.1	872.8	874.9	871.5	869.4	871.5	874.2	871.5	883.7
7.5°	879.6	866.0	870.1	868.1	866.0	867.4	869.4	864.7	877.6
10°	870.1	856.5	862.6	858.5	856.5	857.8	861.3	854.4	868.1
12.5°	859.2	845.6	851.7	847.0	844.9	844.9	851.0	843.6	855.8
15°	844.2	833.3	837.4	832.7	829.3	831.3	836.1	830.6	840.8
17.5°	827.2	817.7	822.4	815.0	808.8	813.6	820.4	814.3	824.5
20°	809.5	798.6	803.4	793.2	787.7	791.8	800.7	795.9	805.4
22.5°	789.8	779.6	783.6	770.0	764.6	768.0	780.9	776.1	785.0
25°	765.9	757.8	758.4	744.8	738.7	742.8	756.4	753.7	761.9
27.5°	742.8	734.6	735.3	719.6	712.8	718.3	731.9	729.9	737.3
30°	717.6	710.1	709.4	693.8	688.3	691.7	705.3	705.3	711.5
32.5°	689.7	683.6	680.2	665.9	660.4	664.5	676.1	678.1	682.9
35°	661.1	657.0	652.2	638.6	631.1	636.6	647.5	650.2	655.0
37.5°	632.5	627.7	622.3	608.7	600.5	607.3	616.8	621.6	625.0
40°	602.5	599.1	593.0	579.4	569.2	576.0	586.9	592.3	597.1
42.5°	571.9	569.9	562.4	548.1	537.9	545.3	556.9	561.7	563.7
45°	541.3	538.5	531.7	516.8	505.9	514.0	526.3	531.0	531.7
47.5°	507.2	507.9	499.7	484.8	473.9	482.0	492.9	499.7	502.5
50°	476.6	477.3	467.7	452.8	441.9	448.0	460.9	467.7	466.4
52.5°	443.9	445.9	435.7	420.8	409.9	416.0	428.9	436.4	437.1
55°	409.9	413.3	402.4	387.4	377.9	384.0	394.9	403.7	403.1
57.5°	377.2	379.9	369.0	355.4	345.9	351.3	360.8	372.4	369.7
60°	344.5	347.2	335.6	322.0	313.9	316.6	327.5	337.0	335.6
62.5°	311.1	313.9	301.6	289.4	279.8	283.9	293.4	305.0	301.6
65°	277.8	279.8	266.9	256.0	247.8	251.9	258.7	271.0	268.2
67.5°	244.4	245.8	234.2	224.0	217.2	219.2	225.4	235.6	234.2
70°	211.1	212.4	201.5	192.0	185.9	187.9	192.7	202.2	200.8
72.5°	177.0	179.1	168.2	159.3	153.2	155.2	158.6	167.5	165.4
75°	143.0	144.3	136.2	129.4	123.9	124.6	127.3	134.1	133.4
77.5°	111.7	115.1	106.2	100.1	96.0	96.7	100.1	103.5	102.1
80°	81.0	85.1	79.0	74.2	70.8	70.1	72.8	75.6	73.5
82.5°	57.2	57.9	53.8	50.4	47.0	47.0	49.0	51.1	49.0
85°	34.0	35.4	32.0	29.3	27.2	26.6	27.9	30.0	28.6
87.5°	16.3	17.0	13.6	12.3	10.2	9.5	10.2	11.6	11.6
90°	1.4	3.4	3.4	4.1	4.8	4.8	4.1	4.1	0.7
92.5°	5.9	13.7	13.7	16.7	17.6	20.6	23.5	24.5	26.5
95°	41.2	29.4	33.3	36.3	38.2	41.2	39.2	36.3	71.6
97.5°	92.1	37.2	47.1	49.0	52.0	52.9	52.9	41.2	130.4
100°	153.9	43.1	55.9	63.7	65.7	65.7	59.8	92.1	200.9
102.5°	226.4	192.1	60.8	70.6	74.5	71.6	63.7	312.7	279.4
105°	304.9	346.0	64.7	74.5	78.4	76.5	66.7	385.2	358.8
107.5°	387.2	419.5	68.6	78.4	82.3	79.4	81.4	459.7	438.2
110°	469.5	497.0	307.8	81.4	85.3	81.4	426.4	535.2	517.6



TEST NUMBER: P199403

CATALOG NUMBER: S122-DIW-U2-1-30-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	547.9	576.4	578.3	86.3	87.2	93.1	634.2	611.7	597.0
115°	630.3	653.8	684.2	398.0	139.2	438.2	706.7	687.1	674.4
117.5°	705.8	728.3	751.8	699.9	533.2	761.6	776.3	761.6	748.9
120°	785.2	807.7	822.4	845.9	847.9	847.9	845.0	833.2	819.5
122.5°	863.6	878.3	890.0	913.6	921.4	912.6	910.6	899.8	889.1
125°	932.2	945.9	961.6	977.3	985.1	976.3	977.3	963.6	955.7
127.5°	996.9	1008.7	1029.2	1039.0	1046.9	1037.1	1041.0	1026.3	1020.4
130°	1059.6	1067.5	1091.0	1098.8	1105.7	1099.8	1102.8	1087.1	1082.2
132.5°	1121.4	1132.2	1151.8	1154.7	1162.5	1153.7	1164.5	1142.9	1141.0
135°	1186.1	1194.9	1209.6	1210.6	1216.5	1211.6	1220.4	1202.7	1196.9
137.5°	1246.8	1250.8	1263.5	1259.6	1268.4	1260.6	1273.3	1255.7	1251.7
140°	1299.8	1302.7	1311.5	1313.5	1319.4	1312.5	1322.3	1304.7	1302.7
142.5°	1348.8	1352.7	1360.6	1359.6	1366.4	1359.6	1371.3	1355.7	1353.7
145°	1394.9	1400.7	1407.6	1404.7	1409.6	1405.6	1417.4	1400.7	1399.8
147.5°	1440.9	1442.9	1452.7	1447.8	1450.7	1445.8	1458.6	1444.9	1442.9
150°	1481.1	1485.0	1490.9	1485.0	1486.0	1483.1	1495.8	1484.1	1482.1
152.5°	1521.3	1520.3	1529.2	1517.4	1522.3	1517.4	1532.1	1520.3	1520.3
155°	1553.7	1552.7	1563.5	1550.7	1552.7	1548.8	1565.4	1551.7	1554.6
157.5°	1586.0	1581.1	1593.8	1581.1	1577.2	1580.1	1592.9	1580.1	1586.0
160°	1614.4	1609.5	1621.3	1607.6	1604.6	1606.6	1620.3	1608.6	1610.5
162.5°	1638.9	1632.1	1642.9	1628.2	1628.2	1625.2	1642.9	1631.1	1637.0
165°	1660.5	1652.7	1661.5	1646.8	1644.8	1642.9	1658.5	1650.7	1656.6
167.5°	1676.2	1668.3	1676.2	1659.5	1661.5	1657.6	1673.2	1668.3	1675.2
170°	1690.9	1681.1	1684.0	1669.3	1669.3	1666.4	1683.0	1678.1	1687.9
172.5°	1700.7	1689.9	1689.9	1673.2	1669.3	1671.3	1688.9	1687.9	1701.7
175°	1709.5	1694.8	1690.9	1675.2	1664.4	1674.2	1690.9	1693.8	1706.6
177.5°	1711.5	1697.8	1693.8	1676.2	1673.2	1674.2	1694.8	1695.8	1706.6
180°	1691.9	1691.9	1691.9	1691.9	1691.9	1691.9	1691.9	1691.9	1691.9

(END OF REPORT)