

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: P199548

Luminaire Tested: **S125-DIW-U2-2-40-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P199548  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27900 P27899)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125-DIW-U2-2-40-0048-1D-UDD-1-NA-W  
Description: DEFINE 5-INCH DIRECT/INDIRECT WALL LED LUMINAIRE  
UPLIGHT LL2-4000K, NO LENS  
DOWNLIGHT LL2-4000K, SATIN WHITE DIFFUSER  
Light Source: -  
757G  
Ballast/Driver: ELECTRONIC DRIVERS

**Summary**

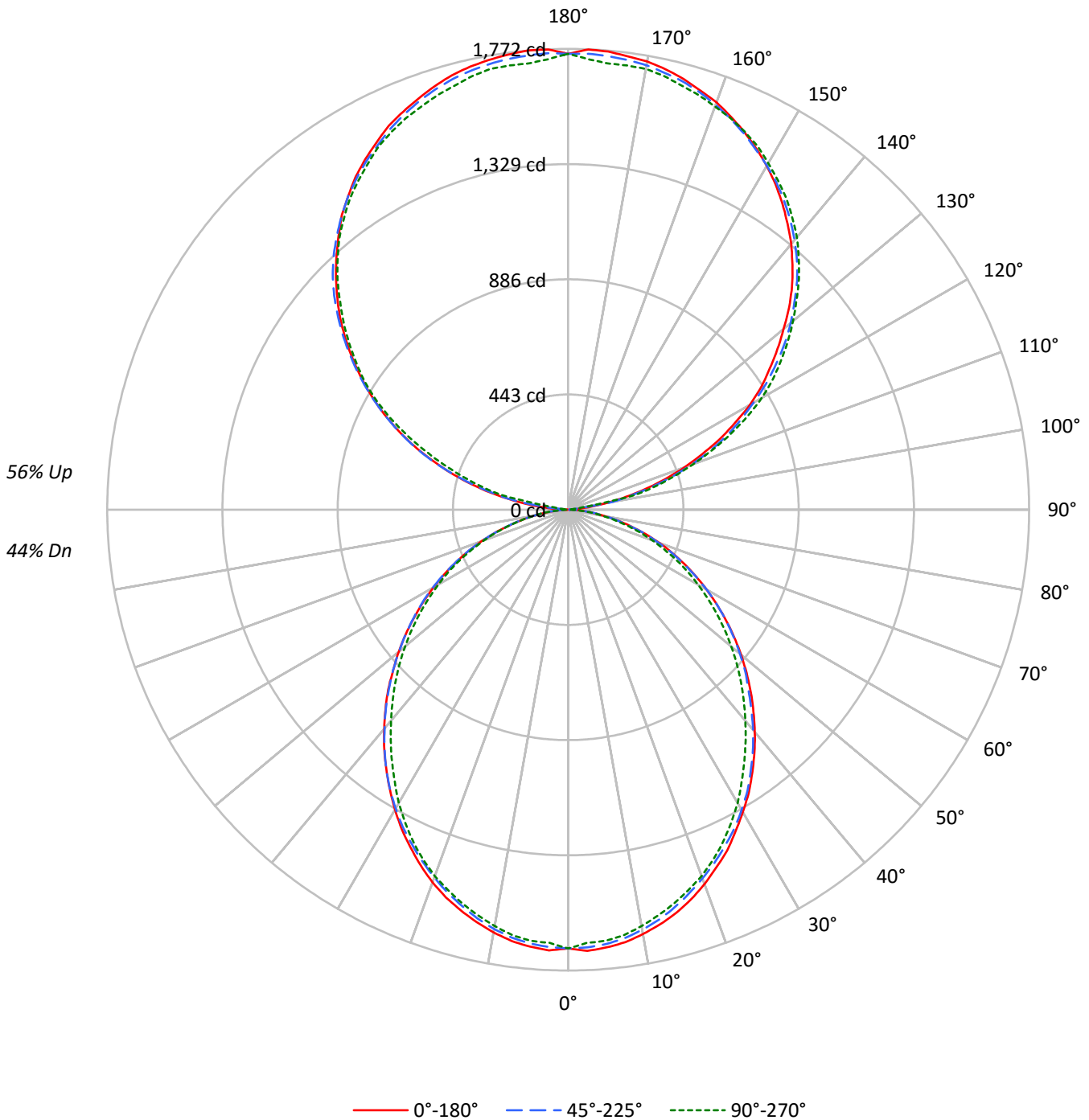
Lumens per Lamp: N/A  
Luminaire Lumens: 9467.6 lumens  
Efficiency: N/A  
Efficacy: 117.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.16 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4.08' x H: 0.38')  
CIE Type: General Diffuse

Input Watts (W): 80.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	97	92	89	85	88	85	81	79	70	68	66	57	56	54	45	44	43	38
2	88	81	75	70	80	74	69	64	62	58	55	50	48	45	40	38	36	32
3	80	71	64	58	73	65	59	54	55	50	46	45	41	38	35	33	31	27
4	73	63	55	49	67	58	51	46	48	43	39	40	36	33	32	29	27	23
5	67	56	48	42	62	52	45	39	43	38	34	36	32	29	29	26	23	20
6	62	50	42	36	57	46	39	34	39	34	30	32	28	25	26	23	21	18
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	21	18	16
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14
9	50	37	30	25	45	35	28	24	30	24	21	25	21	18	20	17	15	13
10	46	34	27	22	42	32	25	21	27	22	19	23	19	16	19	16	13	12

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	10671	10671	10671
5°	10646	9796	10626
10°	10474	9014	10435
15°	10261	8274	10195
20°	9980	7601	9933
25°	9681	6929	9598
30°	9310	6262	9238
35°	8952	5595	8847
40°	8556	4983	8438
45°	8138	4424	8019
50°	7692	3887	7546
55°	7217	3363	7046
60°	6705	2848	6525
65°	6146	2352	5926
70°	5489	1825	5230
75°	4604	1297	4285
80°	3488	807	3191
85°	2082	352	1827



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.6	1.7
10°-20°	445.3	4.7
20°-30°	654.2	6.9
30°-40°	755.5	8.0
40°-50°	748.9	7.9
50°-60°	649.5	6.9
60°-70°	474.4	5.0
70°-80°	259.3	2.7
80°-90°	67.4	0.7
90°-100°	55.7	0.6
100°-110°	372.3	3.9
110°-120°	682.9	7.2
120°-130°	885.4	9.4
130°-140°	962.0	10.2
140°-150°	909.2	9.6
150°-160°	739.7	7.8
160°-170°	481.0	5.1
170°-180°	166.3	1.8
0°-30°	1258.0	13.3
0°-40°	2013.5	21.3
0°-60°	3412.0	36.0
0°-90°	4213.1	44.5
90°-120°	1110.9	11.7
90°-150°	3867.6	40.9
90°-180°	5255.0	55.5
0°-180°	9467.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1687	1687	1687	1687	1687	
5°	1690	1676	1664	1674	1687	160
15°	1605	1582	1568	1577	1595	452
25°	1446	1427	1409	1420	1434	665
35°	1234	1223	1181	1219	1219	771
45°	993	980	939	974	979	766
55°	740	739	697	726	723	662
65°	491	487	460	476	474	487
75°	253	251	231	236	235	269
85°	59	62	55	55	52	66
90°	2	4	2	3	2	5
95°	37	11	12	18	86	55
105°	306	324	347	383	391	325
115°	643	670	690	724	720	634
125°	946	976	998	1018	1012	846
135°	1217	1245	1254	1280	1262	937
145°	1436	1448	1462	1473	1473	898
155°	1602	1597	1604	1616	1630	739
165°	1715	1704	1688	1715	1729	484
175°	1768	1751	1723	1754	1772	168
180°	1753	1753	1753	1753	1753	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1686.7	1686.7	1686.7	1686.7	1686.7	1686.7	1686.7	1686.7	1686.7
2.5°	1698.1	1680.6	1684.7	1681.6	1667.1	1679.5	1683.6	1677.5	1696.0
5°	1689.8	1672.3	1676.4	1672.3	1664.0	1670.2	1674.4	1668.2	1686.7
7.5°	1677.5	1658.9	1662.0	1657.8	1649.6	1654.7	1659.9	1653.7	1672.3
10°	1656.8	1639.3	1640.3	1635.1	1625.8	1632.0	1637.2	1632.0	1650.6
12.5°	1633.1	1614.5	1614.5	1606.2	1598.0	1603.1	1610.4	1606.2	1624.8
15°	1605.2	1585.6	1582.5	1577.3	1568.0	1574.2	1577.3	1576.3	1594.9
17.5°	1571.1	1550.5	1546.4	1545.3	1534.0	1542.2	1543.3	1540.2	1562.9
20°	1531.9	1512.3	1509.2	1508.2	1498.9	1505.1	1505.1	1500.9	1524.7
22.5°	1488.5	1470.0	1468.9	1466.9	1456.5	1463.8	1463.8	1457.6	1481.3
25°	1446.2	1423.5	1426.6	1421.4	1409.1	1419.4	1420.4	1410.1	1433.8
27.5°	1393.6	1376.0	1382.2	1372.9	1356.4	1369.8	1376.0	1360.5	1385.3
30°	1342.0	1323.4	1333.7	1317.2	1302.7	1315.1	1326.5	1306.9	1331.6
32.5°	1291.4	1269.7	1282.1	1261.4	1240.8	1256.3	1274.9	1256.3	1275.9
35°	1233.6	1216.0	1223.3	1201.6	1180.9	1196.4	1219.1	1201.6	1219.1
37.5°	1175.8	1161.3	1166.5	1140.7	1120.0	1135.5	1159.2	1145.8	1161.3
40°	1115.9	1105.6	1105.6	1079.8	1059.1	1073.6	1098.3	1091.1	1100.4
42.5°	1054.0	1049.8	1041.6	1018.9	999.2	1013.7	1037.4	1035.4	1039.5
45°	993.1	993.1	979.6	955.9	939.4	952.8	974.5	979.6	978.6
47.5°	930.1	935.2	923.9	898.1	879.5	892.9	912.5	921.8	911.5
50°	867.1	876.4	862.0	839.2	818.6	833.0	849.6	862.0	850.6
52.5°	804.1	815.5	800.0	778.3	757.7	771.1	787.6	802.1	787.6
55°	740.1	753.6	739.1	716.4	696.8	709.2	725.7	740.1	722.6
57.5°	677.2	689.6	677.2	654.5	635.9	647.2	664.8	676.1	660.7
60°	614.2	627.6	615.2	593.6	576.0	585.3	601.8	613.2	597.7
62.5°	552.3	563.6	550.2	532.7	519.2	523.4	538.8	552.3	535.8
65°	491.4	501.7	487.2	471.8	460.4	462.5	475.9	483.1	473.8
67.5°	431.5	442.8	427.4	412.9	399.5	403.6	415.0	425.3	413.9
70°	371.6	383.0	366.5	354.1	342.7	344.8	354.1	365.4	354.1
72.5°	312.8	322.1	310.7	296.3	288.0	290.1	295.2	305.6	294.2
75°	252.9	263.2	250.8	239.5	231.2	233.3	236.4	244.7	235.4
77.5°	197.2	204.4	196.1	186.8	181.7	182.7	183.7	189.9	181.7
80°	145.6	151.7	146.6	139.4	135.2	135.2	135.2	140.4	133.2
82.5°	99.1	105.3	101.2	96.0	92.9	89.8	91.9	96.0	89.8
85°	58.8	64.0	61.9	56.8	54.7	52.6	54.7	56.8	51.6
87.5°	26.8	31.0	27.9	22.7	20.6	18.6	18.6	21.7	17.5
90°	2.1	5.2	4.1	3.1	2.1	2.1	3.1	4.1	2.1
92.5°	5.2	7.2	7.2	8.3	8.3	9.3	10.3	12.4	35.1
95°	37.2	41.3	11.4	12.4	12.4	13.4	17.5	100.1	85.7
97.5°	85.7	109.4	36.1	21.7	19.6	28.9	111.5	159.0	150.7
100°	152.8	170.3	172.4	112.5	76.4	157.9	219.9	237.4	226.1
102.5°	226.1	245.7	240.5	261.2	268.4	291.1	296.3	319.0	309.7
105°	305.6	327.2	324.1	344.8	346.8	372.7	383.0	396.4	391.2
107.5°	389.2	404.7	412.9	426.3	425.3	453.2	473.8	480.0	474.8
110°	474.8	485.2	500.7	509.9	509.9	537.8	561.6	562.6	557.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	556.4	573.9	588.4	599.8	597.7	627.6	644.1	647.2	641.0
115°	643.1	650.3	669.9	686.5	689.6	712.3	723.6	726.7	720.5
117.5°	722.6	734.0	746.3	766.0	776.3	790.7	799.0	804.1	798.0
120°	807.2	814.5	821.7	840.3	858.9	867.1	873.3	877.4	872.3
122.5°	880.5	885.7	901.2	913.6	932.1	938.3	947.6	946.6	942.5
125°	945.6	952.8	975.5	982.7	998.2	1006.5	1017.8	1011.6	1011.6
127.5°	1013.7	1019.9	1048.8	1049.8	1064.3	1073.6	1088.0	1077.7	1078.7
130°	1080.8	1091.1	1116.9	1116.9	1128.3	1138.6	1155.1	1139.6	1143.8
132.5°	1152.0	1155.1	1178.9	1179.9	1190.2	1200.5	1220.2	1199.5	1203.6
135°	1217.1	1214.0	1244.9	1239.8	1254.2	1260.4	1280.0	1255.3	1262.5
137.5°	1275.9	1268.7	1301.7	1296.5	1312.0	1313.1	1333.7	1310.0	1318.2
140°	1333.7	1325.4	1353.3	1350.2	1367.8	1365.7	1381.2	1361.6	1372.9
142.5°	1385.3	1376.0	1402.9	1401.8	1415.3	1415.3	1428.7	1412.2	1428.7
145°	1435.9	1423.5	1448.3	1447.3	1461.7	1460.7	1473.1	1457.6	1473.1
147.5°	1483.4	1471.0	1490.6	1488.5	1500.9	1502.0	1512.3	1503.0	1519.5
150°	1526.7	1515.4	1527.8	1526.7	1538.1	1539.1	1549.5	1545.3	1557.7
152.5°	1566.0	1555.6	1561.8	1559.8	1576.3	1570.1	1582.5	1580.4	1593.8
155°	1602.1	1591.8	1596.9	1592.8	1604.2	1603.1	1616.5	1614.5	1630.0
157.5°	1635.1	1623.8	1627.9	1621.7	1630.0	1630.0	1645.5	1645.5	1656.8
160°	1667.1	1651.6	1656.8	1646.5	1649.6	1653.7	1672.3	1672.3	1682.6
162.5°	1689.8	1679.5	1682.6	1668.2	1671.3	1673.3	1695.0	1695.0	1707.4
165°	1714.6	1701.2	1704.3	1686.7	1687.8	1692.9	1714.6	1715.6	1729.1
167.5°	1734.2	1720.8	1719.8	1702.2	1707.4	1708.4	1729.1	1730.1	1744.6
170°	1749.7	1735.3	1735.3	1716.7	1720.8	1718.7	1740.4	1743.5	1755.9
172.5°	1758.0	1747.6	1744.6	1723.9	1722.9	1726.0	1748.7	1752.8	1765.2
175°	1768.3	1755.9	1750.7	1731.1	1722.9	1733.2	1753.8	1758.0	1772.4
177.5°	1771.4	1759.0	1754.9	1734.2	1734.2	1736.3	1756.9	1760.0	1771.4
180°	1752.8	1752.8	1752.8	1752.8	1752.8	1752.8	1752.8	1752.8	1752.8

(END OF REPORT)