

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: P199407

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199407
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-U2-1-40-0048-1D-UDD-1-NA-W
Description: DEFINE 2-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL2-4000K, NO LENS
DOWNLIGHT LL1-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

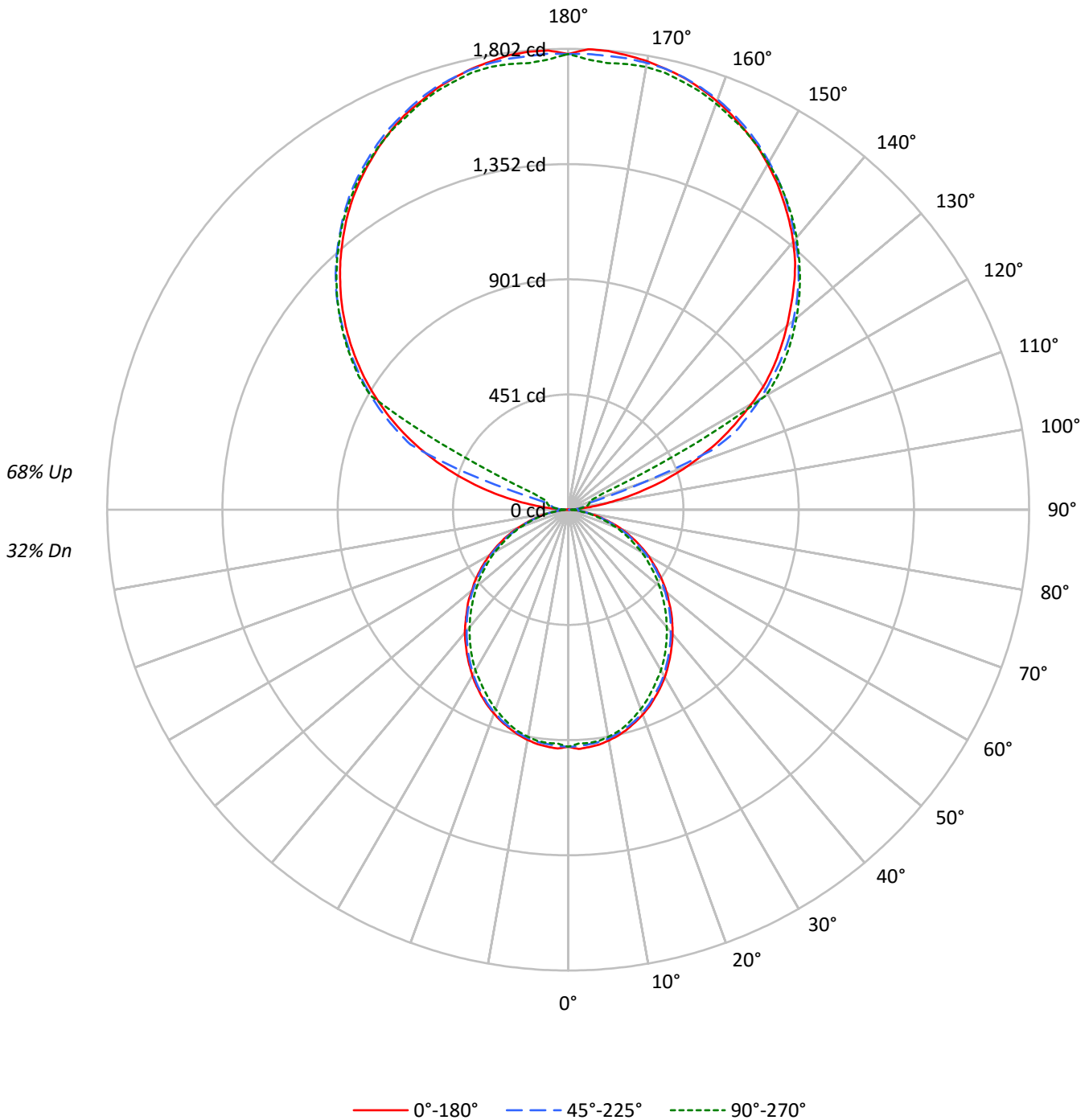
Lumens per Lamp: N/A
Luminaire Lumens: 7442.0 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

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°	14663	14663	14663
5°	14681	12146	14657
10°	14481	10372	14448
15°	14208	8921	14151
20°	13884	7677	13814
25°	13498	6625	13426
30°	13106	5758	12994
35°	12630	4982	12512
40°	12163	4285	12054
45°	11677	3666	11472
50°	11131	3110	10892
55°	10521	2604	10348
60°	9901	2135	9647
65°	9145	1677	8833
70°	8209	1260	7810
75°	6854	849	6394
80°	5109	494	4635
85°	3170	195	2665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.4	1.2
10°-20°	247.4	3.3
20°-30°	364.9	4.9
30°-40°	425.6	5.7
40°-50°	426.5	5.7
50°-60°	373.1	5.0
60°-70°	274.5	3.7
70°-80°	148.8	2.0
80°-90°	38.1	0.5
90°-100°	44.0	0.6
100°-110°	200.1	2.7
110°-120°	581.6	7.8
120°-130°	908.8	12.2
130°-140°	979.7	13.2
140°-150°	925.9	12.4
150°-160°	755.0	10.1
160°-170°	491.4	6.6
170°-180°	169.3	2.3
0°-30°	699.8	9.4
0°-40°	1125.4	15.1
0°-60°	1924.9	25.9
0°-90°	2386.3	32.1
90°-120°	825.7	11.1
90°-150°	3640.1	48.9
90°-180°	5056.0	67.9
0°-180°	7442.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	927	927	927	927	927	
5°	932	921	916	921	931	88
15°	889	882	873	880	886	251
25°	807	799	778	797	802	372
35°	696	687	665	682	690	436
45°	570	560	533	554	560	439
55°	432	424	398	416	424	387
65°	292	281	261	272	282	289
75°	151	143	130	134	140	160
85°	36	34	29	29	30	40
90°	1	4	5	4	1	4
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: P199407

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	927.1	927.1	927.1	927.1	927.1	927.1	927.1	927.1	927.1
2.5°	936.4	923.5	925.6	922.8	915.6	922.0	924.9	922.8	934.9
5°	932.1	919.2	921.3	917.7	915.6	917.7	920.6	917.7	930.6
7.5°	926.3	912.0	916.3	914.2	912.0	913.4	915.6	910.6	924.2
10°	916.3	902.0	908.4	904.1	902.0	903.4	907.0	899.8	914.2
12.5°	904.8	890.5	896.9	891.9	889.8	889.8	896.2	888.3	901.3
15°	889.1	877.6	881.9	876.9	873.3	875.4	880.5	874.7	885.5
17.5°	871.1	861.1	866.1	858.2	851.8	856.8	864.0	857.5	868.3
20°	852.5	841.0	846.0	835.3	829.6	833.9	843.2	838.2	848.2
22.5°	831.7	820.9	825.3	810.9	805.2	808.8	822.4	817.4	826.7
25°	806.6	798.0	798.7	784.4	777.9	782.2	796.6	793.7	802.3
27.5°	782.2	773.6	774.3	757.9	750.7	756.4	770.8	768.6	776.5
30°	755.7	747.8	747.1	730.6	724.9	728.5	742.8	742.8	749.2
32.5°	726.3	719.9	716.3	701.2	695.5	699.8	712.0	714.1	719.1
35°	696.2	691.9	686.9	672.5	664.6	670.4	681.9	684.7	689.7
37.5°	666.1	661.1	655.3	641.0	632.4	639.6	649.6	654.6	658.2
40°	634.5	630.9	624.5	610.2	599.4	606.6	618.0	623.8	628.8
42.5°	602.3	600.1	592.2	577.2	566.4	574.3	586.5	591.5	593.7
45°	570.0	567.1	560.0	544.2	532.7	541.3	554.2	559.2	560.0
47.5°	534.2	534.9	526.3	510.5	499.0	507.6	519.1	526.3	529.1
50°	501.9	502.6	492.6	476.8	465.3	471.8	485.4	492.6	491.1
52.5°	467.5	469.6	458.9	443.1	431.6	438.1	451.7	459.6	460.3
55°	431.6	435.2	423.7	408.0	397.9	404.4	415.9	425.2	424.5
57.5°	397.2	400.1	388.6	374.3	364.2	370.0	380.0	392.2	389.3
60°	362.8	365.7	353.5	339.1	330.5	333.4	344.9	354.9	353.5
62.5°	327.7	330.5	317.6	304.7	294.7	299.0	309.0	321.2	317.6
65°	292.5	294.7	281.1	269.6	261.0	265.3	272.5	285.4	282.5
67.5°	257.4	258.8	246.6	235.9	228.7	230.9	237.3	248.1	246.6
70°	222.3	223.7	212.2	202.2	195.7	197.9	202.9	212.9	211.5
72.5°	186.4	188.6	177.1	167.8	161.3	163.5	167.1	176.4	174.2
75°	150.6	152.0	143.4	136.2	130.5	131.2	134.1	141.2	140.5
77.5°	117.6	121.2	111.8	105.4	101.1	101.8	105.4	109.0	107.5
80°	85.3	89.6	83.2	78.2	74.6	73.8	76.7	79.6	77.4
82.5°	60.2	60.9	56.6	53.1	49.5	49.5	51.6	53.8	51.6
85°	35.8	37.3	33.7	30.8	28.7	28.0	29.4	31.5	30.1
87.5°	17.2	17.9	14.3	12.9	10.8	10.0	10.8	12.2	12.2
90°	1.4	3.6	3.6	4.3	5.0	5.0	4.3	4.3	0.7
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



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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)