

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: P199405

Luminaire Tested: **S122-DIW-U2-1-35-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199405
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-U2-1-35-0048-1D-UDD-1-NA-W
Description: DEFINE 2-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL2-3500K, NO LENS
DOWNLIGHT LL1-3500K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

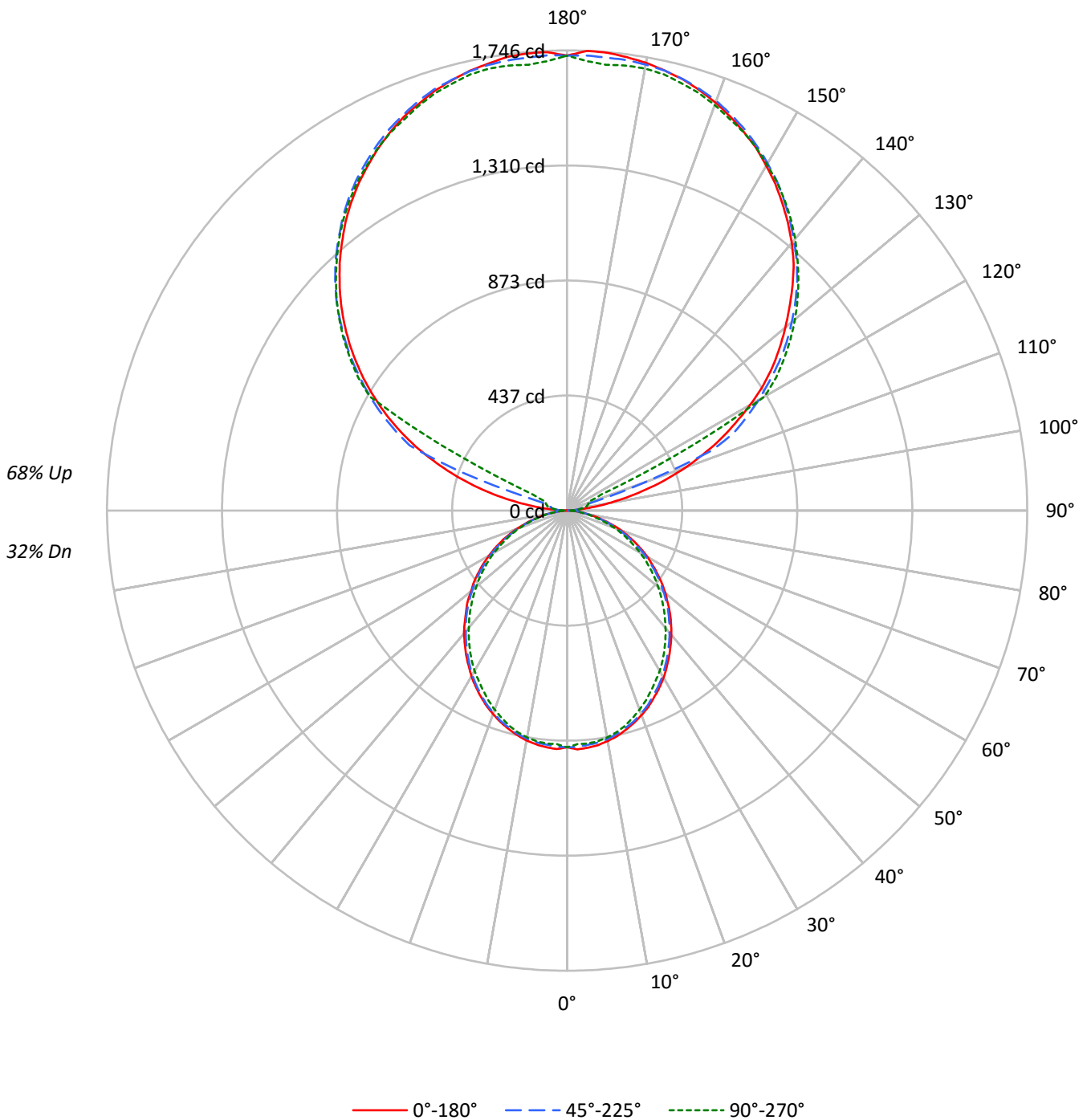
Lumens per Lamp: N/A
Luminaire Lumens: 7209.3 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

Input Watts (W): 65.5
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

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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	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°	14204	14204	14204
5°	14221	11766	14199
10°	14029	10047	13996
15°	13764	8642	13708
20°	13450	7436	13383
25°	13076	6418	13006
30°	12697	5578	12588
35°	12234	4827	12122
40°	11783	4152	11676
45°	11312	3552	11114
50°	10783	3013	10552
55°	10192	2523	10024
60°	9593	2068	9344
65°	8861	1624	8558
70°	7950	1221	7566
75°	6640	822	6194
80°	4953	478	4492
85°	3072	189	2585



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	1.2
10°-20°	239.7	3.3
20°-30°	353.5	4.9
30°-40°	412.3	5.7
40°-50°	413.1	5.7
50°-60°	361.4	5.0
60°-70°	265.9	3.7
70°-80°	144.1	2.0
80°-90°	36.9	0.5
90°-100°	42.6	0.6
100°-110°	193.8	2.7
110°-120°	563.4	7.8
120°-130°	880.3	12.2
130°-140°	949.1	13.2
140°-150°	896.9	12.4
150°-160°	731.4	10.1
160°-170°	476.0	6.6
170°-180°	164.0	2.3
0°-30°	677.9	9.4
0°-40°	1090.2	15.1
0°-60°	1864.7	25.9
0°-90°	2311.7	32.1
90°-120°	799.8	11.1
90°-150°	3526.2	48.9
90°-180°	4898.0	67.9
0°-180°	7209.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	898	898	898	898	898	
5°	903	892	887	892	902	86
15°	861	854	846	853	858	243
25°	781	774	754	772	777	360
35°	674	665	644	660	668	422
45°	552	542	516	537	542	425
55°	418	410	386	403	411	374
65°	283	272	253	264	274	280
75°	146	139	126	130	136	155
85°	35	33	28	28	29	39
90°	1	4	5	4	1	3
95°	42	34	39	40	73	59
105°	311	66	80	68	366	331
115°	643	698	142	721	688	634
125°	951	981	1005	997	975	848
135°	1210	1234	1241	1245	1221	932
145°	1423	1436	1438	1446	1428	891
155°	1585	1595	1584	1597	1586	731
165°	1694	1695	1678	1692	1690	478
175°	1744	1725	1698	1725	1741	166
180°	1726	1726	1726	1726	1726	



TEST NUMBER: P199405

CATALOG NUMBER: S122-DIW-U2-1-35-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1
2.5°	907.1	894.6	896.7	893.9	887.0	893.2	896.0	893.9	905.7
5°	902.9	890.4	892.5	889.0	887.0	889.0	891.8	889.0	901.5
7.5°	897.4	883.5	887.7	885.6	883.5	884.9	887.0	882.1	895.3
10°	887.7	873.8	880.0	875.8	873.8	875.2	878.6	871.7	885.6
12.5°	876.5	862.7	868.9	864.0	862.0	862.0	868.2	860.6	873.1
15°	861.3	850.1	854.3	849.5	846.0	848.1	852.9	847.4	857.8
17.5°	843.9	834.2	839.0	831.4	825.1	830.0	837.0	830.7	841.1
20°	825.8	814.7	819.6	809.2	803.6	807.8	816.8	811.9	821.7
22.5°	805.7	795.3	799.4	785.6	780.0	783.5	796.7	791.8	800.8
25°	781.4	773.1	773.7	759.9	753.6	757.8	771.7	768.9	777.2
27.5°	757.8	749.4	750.1	734.2	727.2	732.8	746.7	744.6	752.2
30°	732.1	724.4	723.7	707.8	702.2	705.7	719.6	719.6	725.8
32.5°	703.6	697.3	693.9	679.3	673.7	677.9	689.7	691.8	696.6
35°	674.4	670.3	665.4	651.5	643.9	649.4	660.5	663.3	668.2
37.5°	645.3	640.4	634.8	620.9	612.6	619.6	629.3	634.1	637.6
40°	614.7	611.2	605.0	591.1	580.7	587.6	598.7	604.3	609.1
42.5°	583.4	581.4	573.7	559.1	548.7	556.3	568.2	573.0	575.1
45°	552.2	549.4	542.5	527.2	516.1	524.4	536.9	541.8	542.5
47.5°	517.5	518.1	509.8	494.5	483.4	491.8	502.9	509.8	512.6
50°	486.2	486.9	477.2	461.9	450.8	457.0	470.2	477.2	475.8
52.5°	452.9	454.9	444.5	429.2	418.1	424.4	437.6	445.2	445.9
55°	418.1	421.6	410.5	395.2	385.5	391.7	402.8	411.9	411.2
57.5°	384.8	387.6	376.5	362.6	352.8	358.4	368.1	379.9	377.1
60°	351.5	354.2	342.4	328.5	320.2	323.0	334.1	343.8	342.4
62.5°	317.4	320.2	307.7	295.2	285.5	289.6	299.4	311.2	307.7
65°	283.4	285.5	272.3	261.2	252.8	257.0	263.9	276.4	273.7
67.5°	249.3	250.7	238.9	228.5	221.6	223.7	229.9	240.3	238.9
70°	215.3	216.7	205.6	195.9	189.6	191.7	196.6	206.3	204.9
72.5°	180.6	182.7	171.6	162.5	156.3	158.4	161.8	170.9	168.8
75°	145.9	147.2	138.9	132.0	126.4	127.1	129.9	136.8	136.1
77.5°	113.9	117.4	108.4	102.1	97.9	98.6	102.1	105.6	104.2
80°	82.7	86.8	80.6	75.7	72.2	71.5	74.3	77.1	75.0
82.5°	58.3	59.0	54.9	51.4	47.9	47.9	50.0	52.1	50.0
85°	34.7	36.1	32.6	29.9	27.8	27.1	28.5	30.6	29.2
87.5°	16.7	17.4	13.9	12.5	10.4	9.7	10.4	11.8	11.8
90°	1.4	3.5	3.5	4.2	4.9	4.9	4.2	4.2	0.7
92.5°	6.0	14.0	14.0	17.0	18.0	21.0	24.0	25.0	27.0
95°	42.0	30.0	34.0	37.0	39.0	42.0	40.0	37.0	73.0
97.5°	94.0	38.0	48.0	50.0	53.0	54.0	54.0	42.0	133.0
100°	157.0	44.0	57.0	65.0	67.0	67.0	61.0	94.0	205.0
102.5°	231.0	196.0	62.0	72.0	76.0	73.0	65.0	319.0	285.0
105°	311.0	353.0	66.0	76.0	80.0	78.0	68.0	393.0	366.0
107.5°	395.0	428.0	70.0	80.0	84.0	81.0	83.0	469.0	447.0
110°	479.0	507.0	314.0	83.0	87.0	83.0	435.0	546.0	528.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	559.0	588.0	590.0	88.0	89.0	95.0	647.0	624.0	609.0
115°	643.0	667.0	698.0	406.0	142.0	447.0	721.0	701.0	688.0
117.5°	720.0	743.0	767.0	714.0	544.0	777.0	792.0	777.0	764.0
120°	801.0	824.0	839.0	863.0	865.0	865.0	862.0	850.0	836.0
122.5°	881.0	896.0	908.0	932.0	940.0	931.0	929.0	918.0	907.0
125°	951.0	965.0	981.0	997.0	1005.0	996.0	997.0	983.0	975.0
127.5°	1017.0	1029.0	1050.0	1060.0	1068.0	1058.0	1062.0	1047.0	1041.0
130°	1081.0	1089.0	1113.0	1121.0	1128.0	1122.0	1125.0	1109.0	1104.0
132.5°	1144.0	1155.0	1175.0	1178.0	1186.0	1177.0	1188.0	1166.0	1164.0
135°	1210.0	1219.0	1234.0	1235.0	1241.0	1236.0	1245.0	1227.0	1221.0
137.5°	1272.0	1276.0	1289.0	1285.0	1294.0	1286.0	1299.0	1281.0	1277.0
140°	1326.0	1329.0	1338.0	1340.0	1346.0	1339.0	1349.0	1331.0	1329.0
142.5°	1376.0	1380.0	1388.0	1387.0	1394.0	1387.0	1399.0	1383.0	1381.0
145°	1423.0	1429.0	1436.0	1433.0	1438.0	1434.0	1446.0	1429.0	1428.0
147.5°	1470.0	1472.0	1482.0	1477.0	1480.0	1475.0	1488.0	1474.0	1472.0
150°	1511.0	1515.0	1521.0	1515.0	1516.0	1513.0	1526.0	1514.0	1512.0
152.5°	1552.0	1551.0	1560.0	1548.0	1553.0	1548.0	1563.0	1551.0	1551.0
155°	1585.0	1584.0	1595.0	1582.0	1584.0	1580.0	1597.0	1583.0	1586.0
157.5°	1618.0	1613.0	1626.0	1613.0	1609.0	1612.0	1625.0	1612.0	1618.0
160°	1647.0	1642.0	1654.0	1640.0	1637.0	1639.0	1653.0	1641.0	1643.0
162.5°	1672.0	1665.0	1676.0	1661.0	1661.0	1658.0	1676.0	1664.0	1670.0
165°	1694.0	1686.0	1695.0	1680.0	1678.0	1676.0	1692.0	1684.0	1690.0
167.5°	1710.0	1702.0	1710.0	1693.0	1695.0	1691.0	1707.0	1702.0	1709.0
170°	1725.0	1715.0	1718.0	1703.0	1703.0	1700.0	1717.0	1712.0	1722.0
172.5°	1735.0	1724.0	1724.0	1707.0	1703.0	1705.0	1723.0	1722.0	1736.0
175°	1744.0	1729.0	1725.0	1709.0	1698.0	1708.0	1725.0	1728.0	1741.0
177.5°	1746.0	1732.0	1728.0	1710.0	1707.0	1708.0	1729.0	1730.0	1741.0
180°	1726.0	1726.0	1726.0	1726.0	1726.0	1726.0	1726.0	1726.0	1726.0

(END OF REPORT)