

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: P199402

Luminaire Tested: **S122-DIP-U2-1-30-X-X0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P199402  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27883 P27883)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122-DIP-U2-1-30-X-X0048-1D-UDD-1-5-W  
Description: DEFINE 2-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE  
UPLIGHT LL2-3000K, SATIN WHITE DIFFUSER  
DOWNLIGHT LL1-3000K, SATIN WHITE DIFFUSER  
Light Source: -  
757G  
Ballast/Driver: ELECTRONIC DRIVERS

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6381.7 lumens  
Efficiency: N/A  
Efficacy: 97.4 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

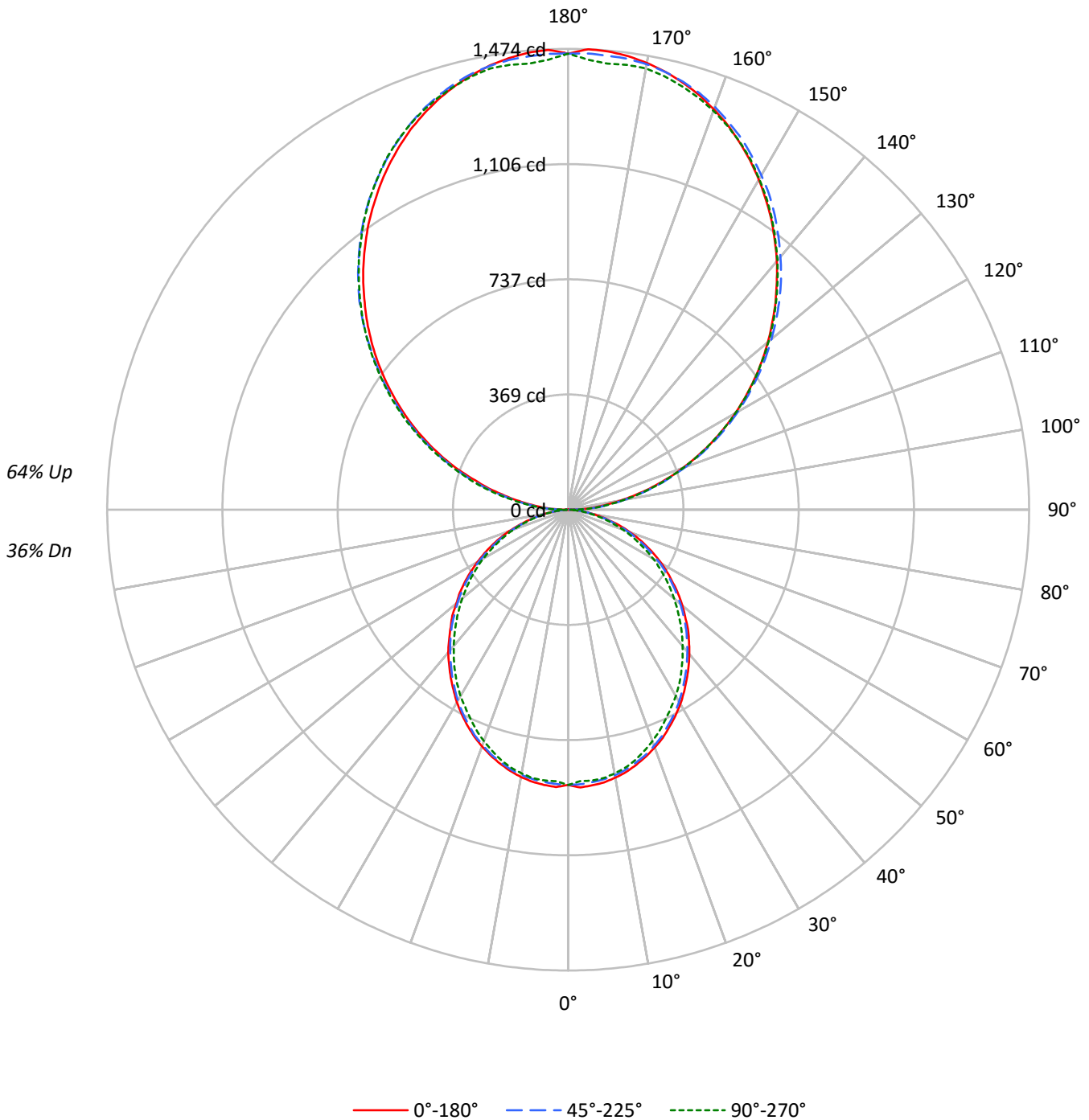
Input Watts (W): 65.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36
1	95	90	87	83	85	82	79	76	66	64	62	51	50	49	38	37	36	30
2	86	79	73	68	78	72	66	62	58	54	51	45	43	41	33	32	30	25
3	79	69	62	56	71	63	57	52	51	47	43	40	37	34	30	28	26	21
4	72	61	54	48	65	56	49	44	45	40	37	35	32	29	26	24	22	18
5	66	54	47	41	59	50	43	38	40	35	31	32	28	25	24	21	19	16
6	61	49	41	35	55	44	38	33	36	31	27	29	25	22	22	19	17	14
7	56	44	36	31	50	40	33	28	33	28	24	26	22	20	20	17	15	12
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	18	15	14	11
9	48	36	29	24	44	33	27	22	27	22	19	22	18	16	17	14	12	10
10	45	33	26	21	41	30	24	20	25	20	17	20	17	14	15	13	11	9

**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	1.3
10°-20°	235.0	3.7
20°-30°	346.5	5.4
30°-40°	404.1	6.3
40°-50°	405.0	6.3
50°-60°	354.3	5.6
60°-70°	260.6	4.1
70°-80°	141.3	2.2
80°-90°	36.2	0.6
90°-100°	101.0	1.6
100°-110°	296.8	4.7
110°-120°	499.2	7.8
120°-130°	651.0	10.2
130°-140°	725.8	11.4
140°-150°	709.8	11.1
150°-160°	597.1	9.4
160°-170°	396.9	6.2
170°-180°	138.2	2.2
0°-30°	664.5	10.4
0°-40°	1068.6	16.7
0°-60°	1827.8	28.6
0°-90°	2266.0	35.5
90°-120°	897.0	14.1
90°-150°	2983.6	46.8
90°-180°	4116.0	64.5
0°-180°	6381.7	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	10
95°	84	97	96	91	79	87
105°	278	290	286	276	262	294
115°	505	513	505	498	487	499
125°	726	738	728	723	710	649
135°	937	956	940	944	918	723
145°	1132	1151	1136	1138	1114	708
155°	1297	1311	1298	1297	1280	597
165°	1414	1417	1403	1410	1403	399
175°	1471	1458	1432	1456	1467	140
180°	1459	1459	1459	1459	1459	



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**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°	52.9	58.8	61.8	59.8	58.8	55.9	55.9	52.9	47.1
95°	84.3	93.1	97.0	96.1	96.1	92.1	91.2	88.2	79.4
97.5°	124.5	134.3	137.2	138.2	137.2	132.3	129.4	126.4	116.6
100°	170.6	180.4	183.3	183.3	182.3	177.4	173.5	169.6	158.8
102.5°	221.5	231.3	234.3	232.3	232.3	225.5	221.5	218.6	206.8
105°	278.4	288.2	290.1	287.2	286.2	279.4	276.4	272.5	261.7
107.5°	333.3	343.1	342.1	341.1	337.2	332.3	330.3	324.5	310.7
110°	390.1	402.9	398.0	396.0	392.1	387.2	385.2	383.3	372.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	447.0	460.7	454.8	452.9	448.0	442.1	442.1	441.1	430.3
115°	504.8	518.5	512.7	508.7	504.8	498.9	498.0	498.9	487.2
117.5°	560.7	576.4	569.5	564.6	560.7	553.8	554.8	556.8	544.0
120°	616.6	634.2	626.4	620.5	617.5	609.7	610.7	614.6	599.9
122.5°	671.5	689.1	682.2	676.4	673.4	664.6	666.6	668.5	654.8
125°	726.3	744.0	738.1	731.2	728.3	722.4	723.4	723.4	709.7
127.5°	780.3	797.9	794.0	786.1	782.2	774.4	778.3	775.4	763.6
130°	833.2	849.9	847.9	839.1	836.1	831.2	834.2	825.4	816.5
132.5°	885.1	901.8	902.8	893.0	889.1	884.2	890.0	880.2	868.5
135°	937.1	951.8	955.7	944.9	940.0	936.1	944.0	928.3	918.5
137.5°	987.1	998.9	1007.7	994.9	991.0	984.1	993.9	978.3	969.4
140°	1038.1	1047.9	1055.7	1045.9	1041.0	1035.1	1043.0	1027.3	1018.5
142.5°	1085.1	1095.9	1103.7	1093.9	1088.1	1083.2	1091.0	1074.3	1066.5
145°	1132.2	1141.0	1150.8	1142.0	1136.1	1131.2	1138.0	1121.4	1113.5
147.5°	1176.3	1184.1	1195.9	1186.1	1180.2	1176.3	1181.2	1164.5	1157.6
150°	1219.4	1223.3	1235.1	1229.2	1221.4	1217.4	1221.4	1206.7	1200.8
152.5°	1259.6	1262.5	1273.3	1266.5	1262.5	1255.7	1260.6	1245.9	1241.9
155°	1296.8	1297.8	1310.6	1302.7	1297.8	1292.9	1296.8	1285.1	1280.2
157.5°	1332.1	1332.1	1340.9	1337.0	1329.2	1327.2	1330.2	1317.4	1316.4
160°	1362.5	1360.6	1371.3	1364.5	1357.6	1355.7	1360.6	1348.8	1347.8
162.5°	1390.9	1387.0	1396.8	1388.0	1382.1	1380.2	1387.0	1376.2	1377.2
165°	1414.5	1409.6	1417.4	1408.6	1402.7	1401.7	1409.6	1398.8	1402.7
167.5°	1435.1	1427.2	1434.1	1425.2	1420.3	1419.4	1428.2	1418.4	1424.3
170°	1450.7	1440.9	1446.8	1435.1	1433.1	1431.1	1441.9	1433.1	1442.9
172.5°	1463.5	1452.7	1454.7	1441.9	1435.1	1439.0	1450.7	1445.8	1456.6
175°	1471.3	1459.6	1457.6	1443.9	1432.1	1440.9	1455.6	1454.7	1467.4
177.5°	1474.3	1463.5	1460.5	1444.9	1440.9	1442.9	1459.6	1460.5	1472.3
180°	1458.6	1458.6	1458.6	1458.6	1458.6	1458.6	1458.6	1458.6	1458.6

(END OF REPORT)