

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: P199408

Luminaire Tested: **S122-DIP-U2-2-30-X-X0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199408
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-U2-2-30-X-X0048-1D-UDD-1-5-W
Description: DEFINE 2-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LL2-3000K, SATIN WHITE DIFFUSER
DOWNLIGHT LL2-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7378.4 lumens
Efficiency: N/A
Efficacy: 91.7 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: General Diffuse

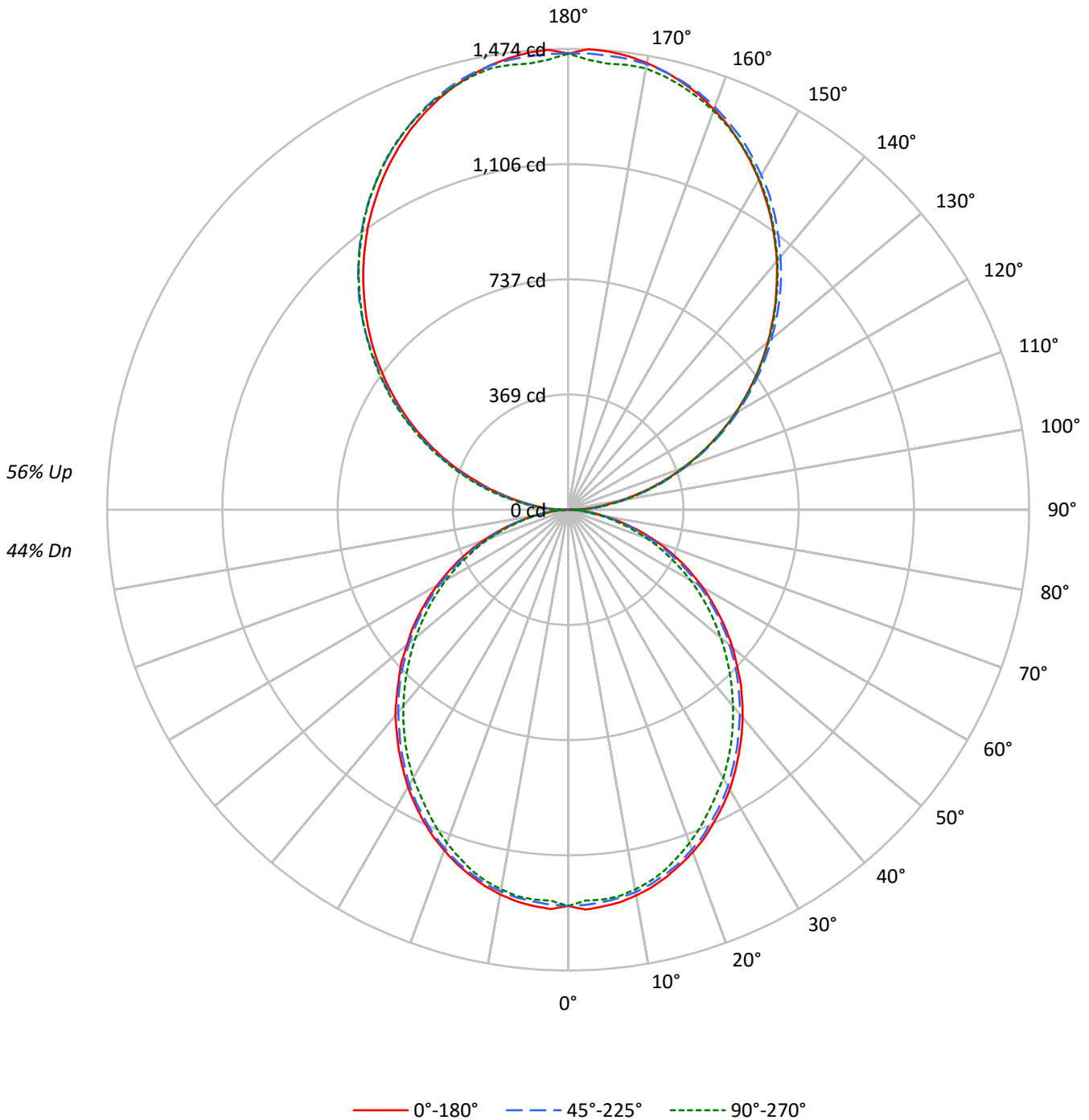
Input Watts (W): 80.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	97	92	88	85	88	85	81	78	70	68	66	57	56	54	45	44	43	37
2	88	81	75	69	80	74	69	64	62	58	55	50	47	45	40	38	36	31
3	80	71	64	58	73	65	59	54	54	50	46	44	41	38	35	33	31	27
4	73	63	55	49	67	58	51	46	48	43	39	39	36	33	31	29	27	23
5	67	56	48	42	61	51	44	39	43	38	34	35	31	28	28	25	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	49	38	31	26	32	27	23	27	22	19	21	18	16	14
9	49	37	30	25	45	35	28	23	29	24	20	24	20	17	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	20045	20045	20045
5°	20070	16604	20039
10°	19798	14179	19752
15°	19425	12196	19346
20°	18982	10494	18886
25°	18455	9057	18356
30°	17919	7872	17765
35°	17267	6812	17107
40°	16629	5859	16480
45°	15965	5012	15684
50°	15219	4252	14893
55°	14385	3560	14146
60°	13536	2919	13190
65°	12503	2292	12075
70°	11222	1723	10679
75°	9366	1160	8743
80°	6983	674	6342
85°	4338	266	3648



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.5	1.6
10°-20°	338.3	4.6
20°-30°	498.9	6.8
30°-40°	581.8	7.9
40°-50°	583.1	7.9
50°-60°	510.0	6.9
60°-70°	375.3	5.1
70°-80°	203.4	2.8
80°-90°	52.1	0.7
90°-100°	101.2	1.4
100°-110°	296.8	4.0
110°-120°	499.2	6.8
120°-130°	651.0	8.8
130°-140°	725.8	9.8
140°-150°	709.8	9.6
150°-160°	597.1	8.1
160°-170°	396.9	5.4
170°-180°	138.2	1.9
0°-30°	956.7	13.0
0°-40°	1538.5	20.9
0°-60°	2631.6	35.7
0°-90°	3262.4	44.2
90°-120°	897.2	12.2
90°-150°	2983.8	40.4
90°-180°	4116.0	55.8
0°-180°	7378.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1267	1267	1267	1267	1267	
5°	1274	1260	1252	1259	1272	121
15°	1216	1206	1194	1204	1211	343
25°	1103	1092	1064	1089	1097	508
35°	952	939	909	932	943	596
45°	779	766	728	758	766	600
55°	590	579	544	568	580	528
65°	400	384	357	372	386	396
75°	206	196	178	183	192	219
85°	49	46	39	40	41	55
90°	2	5	7	6	1	11
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°	1267.4	1267.4	1267.4	1267.4	1267.4	1267.4	1267.4	1267.4	1267.4
2.5°	1280.2	1262.5	1265.5	1261.6	1251.7	1260.6	1264.5	1261.6	1278.2
5°	1274.3	1256.7	1259.6	1254.7	1251.7	1254.7	1258.6	1254.7	1272.3
7.5°	1266.5	1246.8	1252.7	1249.8	1246.8	1248.8	1251.7	1244.9	1263.5
10°	1252.7	1233.1	1241.9	1236.1	1233.1	1235.1	1240.0	1230.2	1249.8
12.5°	1237.0	1217.4	1226.3	1219.4	1216.5	1216.5	1225.3	1214.5	1232.1
15°	1215.5	1199.8	1205.7	1198.8	1193.9	1196.9	1203.7	1195.9	1210.6
17.5°	1191.0	1177.3	1184.1	1173.3	1164.5	1171.4	1181.2	1172.4	1187.1
20°	1165.5	1149.8	1156.7	1142.0	1134.1	1140.0	1152.7	1145.9	1159.6
22.5°	1137.1	1122.4	1128.2	1108.6	1100.8	1105.7	1124.3	1117.5	1130.2
25°	1102.8	1091.0	1092.0	1072.4	1063.5	1069.4	1089.0	1085.1	1096.9
27.5°	1069.4	1057.7	1058.6	1036.1	1026.3	1034.1	1053.7	1050.8	1061.6
30°	1033.2	1022.4	1021.4	998.9	991.0	995.9	1015.5	1015.5	1024.3
32.5°	993.0	984.1	979.2	958.7	950.8	956.7	973.4	976.3	983.2
35°	951.8	945.9	939.1	919.5	908.7	916.5	932.2	936.1	943.0
37.5°	910.6	903.8	895.9	876.3	864.6	874.4	888.1	894.9	899.8
40°	867.5	862.6	853.8	834.2	819.5	829.3	845.0	852.8	859.7
42.5°	823.4	820.4	809.7	789.1	774.4	785.2	801.8	808.7	811.6
45°	779.3	775.4	765.6	744.0	728.3	740.1	757.7	764.6	765.6
47.5°	730.3	731.2	719.5	697.9	682.2	694.0	709.7	719.5	723.4
50°	686.2	687.1	673.4	651.9	636.2	645.0	663.6	673.4	671.5
52.5°	639.1	642.0	627.3	605.8	590.1	598.9	617.5	628.3	629.3
55°	590.1	595.0	579.3	557.7	544.0	552.8	568.5	581.3	580.3
57.5°	543.0	547.0	531.3	511.7	498.0	505.8	519.5	536.2	532.3
60°	496.0	499.9	483.3	463.6	451.9	455.8	471.5	485.2	483.3
62.5°	448.0	451.9	434.2	416.6	402.9	408.8	422.5	439.1	434.2
65°	399.9	402.9	384.2	368.6	356.8	362.7	372.5	390.1	386.2
67.5°	351.9	353.9	337.2	322.5	312.7	315.6	324.5	339.2	337.2
70°	303.9	305.8	290.1	276.4	267.6	270.5	277.4	291.1	289.2
72.5°	254.9	257.8	242.1	229.4	220.6	223.5	228.4	241.1	238.2
75°	205.8	207.8	196.0	186.2	178.4	179.4	183.3	193.1	192.1
77.5°	160.8	165.7	152.9	144.1	138.2	139.2	144.1	149.0	147.0
80°	116.6	122.5	113.7	106.8	101.9	101.0	104.9	108.8	105.9
82.5°	82.3	83.3	77.4	72.5	67.6	67.6	70.6	73.5	70.6
85°	49.0	51.0	46.1	42.1	39.2	38.2	40.2	43.1	41.2
87.5°	23.5	24.5	19.6	17.6	14.7	13.7	14.7	16.7	16.7
90°	2.0	4.9	4.9	5.9	6.9	6.9	5.9	5.9	1.0
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)