

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P735921

Luminaire Tested: S122RDRP-S485D930-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2024
Report Number: P735921
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-143-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/24/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D930-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

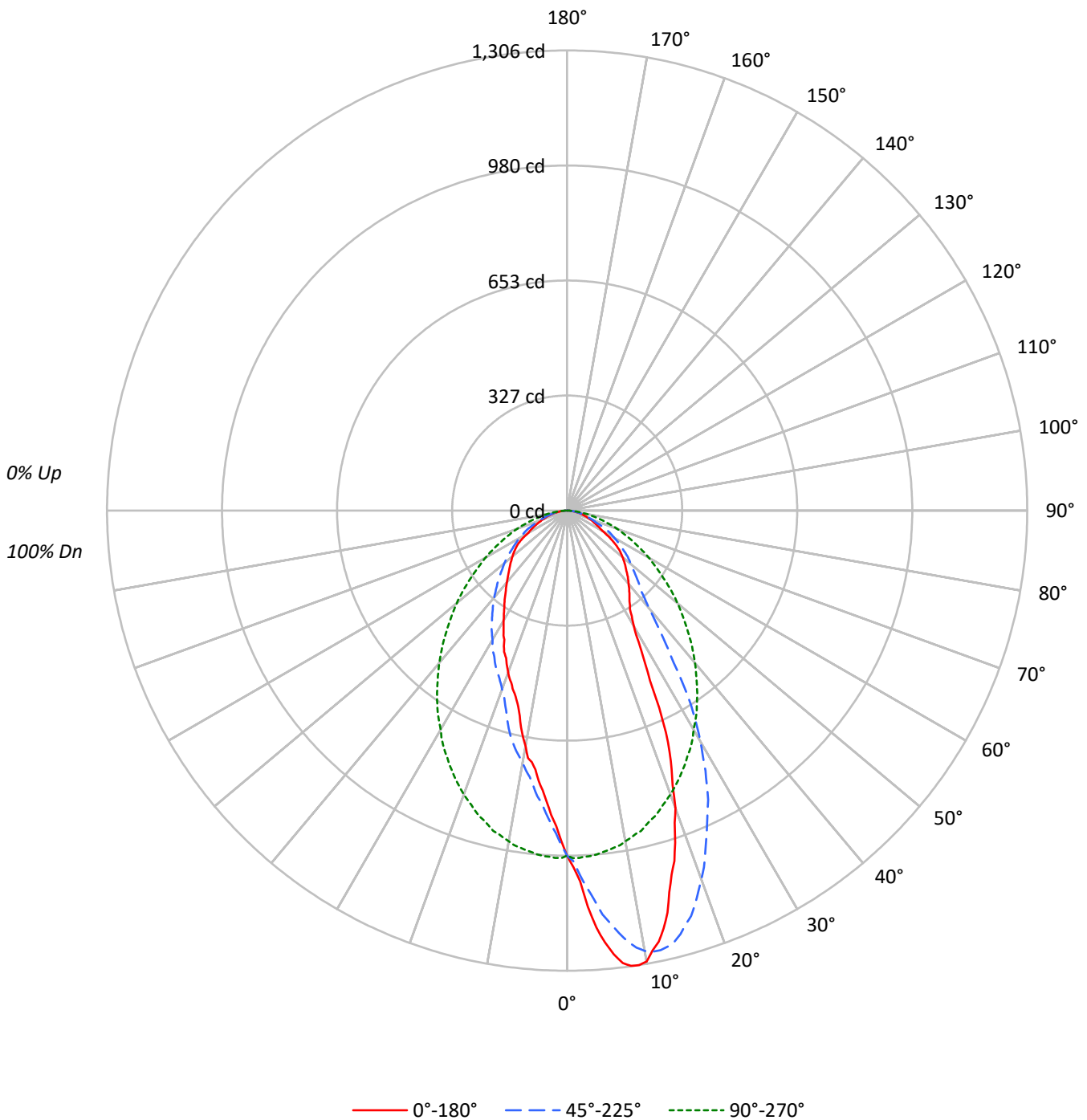
Lumens per Lamp: N/A
Luminaire Lumens: 1677.7 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.11 / 1
Luminous Opening: Rectangular (W 4' x L: 0.14' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
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: 24 FT

TEST NUMBER: P735921

CATALOG NUMBER: S122RDRP-S485D930-X4F0-XX-UDD-W-W

Luminous Intensity Polar Plot



TEST NUMBER: P735921

CATALOG NUMBER: S122RDRP-S485D930-X4F0-XX-UDD-W-W

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	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																												
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																												
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																												
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58																												
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52																												
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46																												
7	71	58	50	45	69	57	50	45	56	49	44	55	49	44	53	48	44	42																												
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																												
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																												
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	18820	18820	18820	18820	18820
5°	23742	22208	18891	16051	15370
10°	25361	24764	18604	14203	13272
15°	22307	24755	18112	12736	11060
20°	18389	22785	17534	11056	10009
25°	13111	20004	16831	10239	9003
30°	8390	16779	15929	9395	7997
35°	7225	12364	15100	8717	7253
40°	6810	9041	14167	8067	6662
45°	6434	7747	13170	7473	6290
50°	6127	7060	12236	6955	6055
55°	5623	6531	11186	6394	5841
60°	4436	5951	10276	5997	4932
65°	4016	5330	9319	5571	4498
70°	3704	4299	8469	4799	4136
75°	3453	3892	7389	4285	3892
80°	3188	3520	6254	3841	3520
85°	2867	3110	4808	3374	3110

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 18436 cd/sqm



TEST NUMBER: P735921

CATALOG NUMBER: S122RDRP-S485D930-X4F0-XX-UDD-W-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.0	5.7
10°-20°	255.2	15.2
20°-30°	320.1	19.1
30°-40°	305.0	18.2
40°-50°	269.0	16.0
50°-60°	211.6	12.6
60°-70°	135.0	8.0
70°-80°	68.6	4.1
80°-90°	18.2	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	670.2	39.9
0°-40°	975.1	58.1
0°-60°	1455.8	86.8
0°-90°	1677.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1677.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	979	979	979	979	979	
5°	1230	1151	979	832	797	120
15°	1121	1244	910	640	556	311
25°	618	943	794	483	424	279
35°	308	527	644	372	309	196
45°	237	285	484	275	231	183
55°	168	195	334	191	174	147
65°	88	117	205	122	99	88
75°	46	52	100	58	52	49
85°	13	14	22	15	14	15
90°	0	0	0	0	0	



TEST NUMBER: P735921

CATALOG NUMBER: S122RDRP-S485D930-X4F0-XX-UDD-W-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	979.1	979.1	979.1	979.1	979.1	979.1	979.1	979.1	979.1
1°	1012.1	1016.8	995.0	997.3	986.8	967.9	949.7	951.4	938.5
2°	1052.7	1065.1	1035.0	1016.8	986.2	953.2	916.7	912.0	896.1
3°	1126.3	1120.4	1070.9	1033.9	983.8	934.4	888.4	877.8	864.3
4°	1185.8	1168.1	1107.4	1055.6	982.6	912.6	860.8	842.5	829.0
5°	1230.5	1208.1	1151.0	1072.1	979.1	900.2	831.9	811.3	796.6
6°	1266.4	1249.3	1179.3	1087.4	974.4	882.0	814.8	787.2	771.9
7°	1294.1	1280.0	1208.1	1108.0	970.3	863.7	787.8	758.9	740.7
8°	1304.7	1298.2	1234.6	1122.8	965.6	850.7	763.6	737.7	721.2
9°	1306.4	1307.0	1255.8	1136.9	961.4	827.2	746.5	720.0	711.2
10°	1299.4	1304.7	1268.8	1152.8	953.2	815.4	727.7	702.4	680.0
11°	1271.7	1295.3	1275.2	1163.4	946.1	796.6	711.2	678.2	655.9
12°	1251.1	1273.5	1275.8	1176.9	937.9	787.8	697.1	652.9	629.4
13°	1217.0	1240.5	1269.9	1180.5	933.2	766.0	679.4	627.0	598.2
14°	1176.3	1214.0	1260.5	1188.1	921.4	747.1	661.8	590.5	573.4
15°	1121.0	1174.6	1244.0	1191.0	910.2	734.2	640.0	572.3	555.8
16°	1075.1	1135.7	1221.7	1191.0	903.1	716.5	616.4	556.4	539.9
17°	1040.3	1089.8	1203.4	1191.6	891.4	704.1	592.9	541.7	528.7
18°	991.5	1046.8	1174.6	1189.3	879.0	689.4	572.9	529.3	513.4
19°	937.3	1003.2	1143.9	1185.2	868.4	674.1	551.7	516.3	502.8
20°	899.0	959.7	1113.9	1178.7	857.2	664.1	540.5	501.6	489.3
21°	834.9	909.0	1083.9	1169.9	845.5	647.0	525.2	488.7	475.1
22.5°	769.5	837.8	1028.6	1155.1	826.0	625.8	508.1	472.8	452.8
23°	744.2	820.7	1011.5	1151.0	819.5	620.5	502.8	465.7	448.0
24°	690.0	769.5	976.2	1138.1	805.4	602.9	492.8	451.6	439.2
25°	618.2	725.9	943.2	1124.5	793.6	589.9	482.8	440.4	424.5
26°	536.9	666.5	913.2	1108.0	777.2	572.3	469.2	429.8	407.4
27°	486.9	615.2	872.5	1090.4	765.4	559.3	458.1	413.9	398.0
28°	446.9	534.6	836.0	1073.3	751.3	543.4	450.4	402.7	383.9
29°	403.3	490.4	793.1	1050.3	735.9	525.2	438.0	391.5	371.5
30°	378.0	443.3	756.0	1033.3	717.7	512.8	423.3	380.3	360.3
32.5°	332.1	365.6	655.3	984.4	683.0	477.5	399.2	349.7	332.6
35°	307.9	325.6	526.9	927.3	643.5	448.0	371.5	324.4	309.1
37.5°	289.7	300.3	435.1	866.1	603.5	422.1	346.2	300.9	286.1
40°	271.4	279.7	360.3	807.2	564.6	396.8	321.5	276.7	265.5
42.5°	254.9	261.4	312.6	748.9	524.6	370.9	297.3	257.9	247.9
45°	236.7	242.6	285.0	678.2	484.5	344.4	274.9	237.3	231.4
47.5°	221.4	225.5	258.5	615.2	445.1	319.1	252.0	220.8	216.7
50°	204.9	210.2	236.1	545.2	409.2	294.4	232.6	206.1	202.5
52.5°	189.0	191.3	217.3	475.1	371.5	270.2	212.0	191.3	189.0
55°	167.8	177.2	194.9	403.3	333.8	247.9	190.8	176.0	174.3
57.5°	143.7	156.0	174.9	338.5	298.5	223.1	173.7	161.9	154.3
60°	115.4	130.1	154.8	281.4	267.3	200.8	156.0	137.8	128.3
62.5°	101.3	106.0	136.6	235.5	235.5	179.6	138.4	118.3	114.2
65°	88.3	91.8	117.2	194.9	204.9	156.0	122.5	102.4	98.9



TEST NUMBER: P735921

CATALOG NUMBER: S122RDRP-S485D930-X4F0-XX-UDD-W-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	77.1	80.1	89.5	162.5	176.6	136.0	101.3	89.5	85.4
70°	65.9	68.3	76.5	132.5	150.7	116.0	85.4	76.5	73.6
72.5°	55.9	58.3	63.0	99.5	123.6	96.6	71.8	65.4	63.0
75°	46.5	47.7	52.4	74.2	99.5	77.1	57.7	53.6	52.4
77.5°	37.7	38.3	41.2	53.0	77.1	58.9	46.5	43.0	42.4
80°	28.8	29.4	31.8	38.3	56.5	42.4	34.7	33.0	31.8
82.5°	20.6	21.2	22.4	25.9	38.3	28.8	24.7	24.1	22.4
85°	13.0	13.0	14.1	15.9	21.8	16.5	15.3	14.7	14.1
87.5°	5.9	5.9	6.5	6.5	10.0	7.1	7.1	6.5	5.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P735921
 CATALOG NUMBER: S122RDRP-S485D930-X4F0-XX-UDD-W-W

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	16.63	18.10	17.00	18.41	18.73	19.33	20.80	19.69	21.11	21.42
	3H	17.75	19.06	18.13	19.39	19.75	20.77	22.08	21.15	22.41	22.77
	4H	18.19	19.42	18.59	19.77	20.15	21.27	22.50	21.67	22.85	23.23
	6H	18.53	19.67	18.95	20.04	20.43	21.60	22.73	22.01	23.10	23.49
	8H	18.65	19.73	19.08	20.12	20.52	21.69	22.77	22.11	23.16	23.56
	12H	18.72	19.76	19.15	20.14	20.57	21.73	22.77	22.16	23.15	23.58
4H	2H	17.80	19.03	18.20	19.38	19.76	19.78	21.01	20.18	21.36	21.74
	3H	19.03	20.05	19.44	20.45	20.85	21.44	22.46	21.85	22.86	23.26
	4H	19.51	20.43	19.94	20.84	21.28	22.08	22.99	22.51	23.41	23.85
	6H	19.91	20.71	20.37	21.15	21.61	22.53	23.33	22.99	23.77	24.23
	8H	20.04	20.79	20.51	21.23	21.70	22.66	23.40	23.12	23.85	24.32
	12H	20.14	20.81	20.63	21.29	21.76	22.74	23.40	23.22	23.88	24.35
8H	4H	19.91	20.65	20.37	21.10	21.57	22.19	22.93	22.65	23.38	23.85
	6H	20.40	21.01	20.90	21.51	21.98	22.75	23.36	23.25	23.86	24.33
	8H	20.59	21.14	21.11	21.65	22.14	22.95	23.50	23.47	24.01	24.50
	12H	20.75	21.23	21.26	21.73	22.29	23.10	23.58	23.61	24.08	24.64
12H	4H	19.96	20.62	20.44	21.10	21.57	22.18	22.84	22.66	23.32	23.79
	6H	20.47	21.02	20.99	21.53	22.02	22.75	23.30	23.26	23.81	24.30
	8H	20.71	21.20	21.22	21.69	22.26	22.99	23.48	23.50	23.97	24.54