

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: P1059138

Luminaire Tested: S123RDRP-S1165D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059138  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1165D930-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

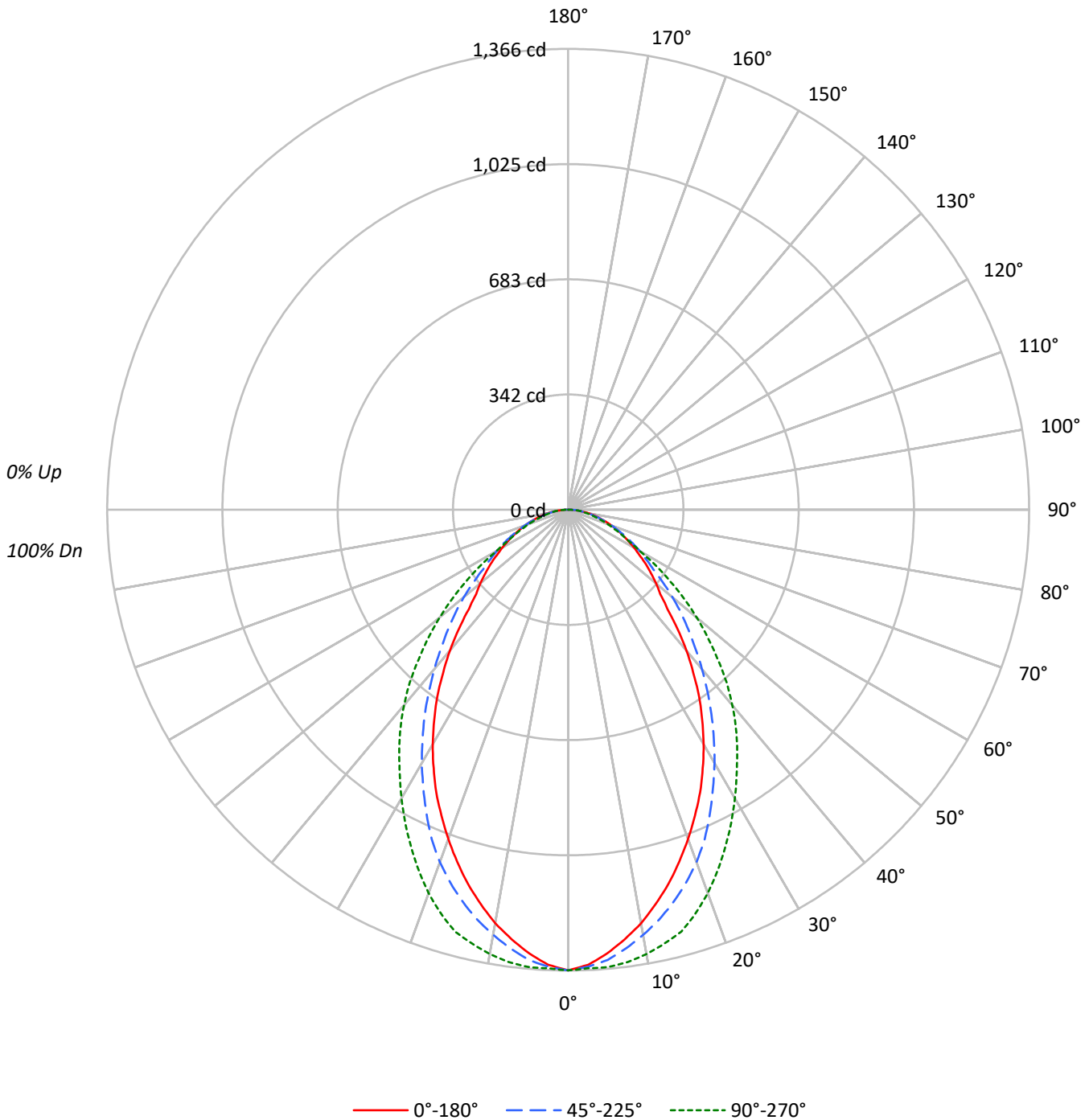
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2399.5 lumens  
Efficiency: N/A  
Efficacy: 57.4 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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: P1059138

CATALOG NUMBER: S123RDRP-S1165D930-X4F0-XX-UDD-WVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1059138

CATALOG NUMBER: S123RDRP-S1165D930-X4F0-XX-UDD-WVL-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	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	102	99	108	104	101	97	100	97	94	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	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66																												
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																												
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51																												
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46																												
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41																												
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38																												
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34																												
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32																												

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16034	16034	16034
5°	15570	15791	16040
10°	14839	15259	15945
15°	13957	14643	15743
20°	12981	13892	15110
25°	11982	12881	14282
30°	10882	11760	13400
35°	9686	10612	12516
40°	8359	9456	11601
45°	6908	8371	10401
50°	6204	7384	9081
55°	5751	6303	7530
60°	5298	5740	5768
65°	4929	5190	4832
70°	4638	4721	4237
75°	4374	4210	3734
80°	4132	3814	3496
85°	3961	4271	3961

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10401 cd/sqm



TEST NUMBER: P1059138

CATALOG NUMBER: S123RDRP-S1165D930-X4F0-XX-UDD-WVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.5	5.3
10°-20°	340.7	14.2
20°-30°	460.9	19.2
30°-40°	473.7	19.7
40°-50°	397.8	16.6
50°-60°	285.2	11.9
60°-70°	181.6	7.6
70°-80°	99.8	4.2
80°-90°	33.3	1.4
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°	928.1	38.7
0°-40°	1401.8	58.4
0°-60°	2084.8	86.9
0°-90°	2399.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2399.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1366	1366	1366	1366	1366	
5°	1321	1344	1340	1349	1361	124
15°	1148	1180	1204	1256	1295	322
25°	925	960	994	1048	1102	424
35°	676	712	740	806	873	420
45°	416	452	504	577	626	328
55°	281	287	308	349	368	251
65°	177	188	187	176	174	177
75°	96	106	93	86	82	102
85°	29	31	32	33	29	32
90°	0	0	0	0	0	



TEST NUMBER: P1059138

CATALOG NUMBER: S123RDRP-S1165D930-X4F0-XX-UDD-WVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1365.5	1365.5	1365.5	1365.5	1365.5
2.5°	1350.2	1369.0	1356.1	1357.3	1360.8
5°	1320.9	1344.4	1339.7	1349.1	1360.8
7.5°	1284.4	1310.3	1311.5	1333.8	1352.6
10°	1244.5	1271.5	1279.7	1313.8	1337.3
12.5°	1197.5	1226.8	1244.5	1286.8	1317.3
15°	1148.1	1179.8	1204.5	1256.2	1295.0
17.5°	1094.1	1128.1	1159.9	1215.1	1255.0
20°	1038.8	1075.3	1111.7	1163.4	1209.2
22.5°	981.2	1018.8	1056.5	1107.0	1157.5
25°	924.8	960.1	994.2	1048.2	1102.3
27.5°	863.7	900.2	929.5	989.5	1045.9
30°	802.6	839.1	867.3	929.5	988.3
32.5°	739.2	776.8	802.6	867.3	928.4
35°	675.7	712.1	740.3	806.1	873.1
37.5°	608.7	648.7	676.9	750.9	816.7
40°	545.3	582.9	616.9	694.5	756.8
42.5°	479.5	518.2	557.0	636.9	694.5
45°	416.0	452.4	504.1	577.0	626.3
47.5°	370.2	393.7	453.6	514.7	561.7
50°	339.6	349.0	404.2	458.3	497.1
52.5°	309.1	316.1	353.7	403.1	432.5
55°	280.9	286.7	307.9	349.0	367.8
57.5°	250.3	256.2	273.8	297.3	307.9
60°	225.6	230.3	244.4	248.0	245.6
62.5°	200.9	208.0	215.1	206.8	203.3
65°	177.4	188.0	186.8	176.3	173.9
67.5°	156.3	166.9	161.0	150.4	146.9
70°	135.1	145.7	137.5	126.9	123.4
72.5°	115.2	126.9	114.0	104.6	102.2
75°	96.4	105.8	92.8	85.8	82.3
77.5°	78.7	85.8	74.0	68.2	65.8
80°	61.1	65.8	56.4	52.9	51.7
82.5°	44.7	47.0	41.1	43.5	42.3
85°	29.4	30.6	31.7	32.9	29.4
87.5°	14.1	20.0	20.0	18.8	15.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059138

CATALOG NUMBER: S123RDRP-S1165D930-X4F0-XX-UDD-WVL-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	16.83	18.29	17.19	18.60	18.92	17.89	19.36	18.26	19.67	19.99
	3H	18.52	19.83	18.90	20.16	20.52	18.98	20.29	19.36	20.62	20.98
	4H	19.18	20.40	19.58	20.75	21.13	19.38	20.61	19.78	20.96	21.34
	6H	19.68	20.81	20.09	21.18	21.57	19.69	20.82	20.10	21.19	21.58
	8H	19.85	20.93	20.28	21.32	21.72	19.83	20.90	20.25	21.29	21.70
	12H	19.98	21.01	20.41	21.39	21.82	19.95	20.98	20.38	21.36	21.79
4H	2H	17.43	18.65	17.83	19.00	19.38	18.30	19.53	18.70	19.87	20.25
	3H	19.35	20.37	19.77	20.77	21.17	19.62	20.63	20.03	21.03	21.44
	4H	20.17	21.08	20.60	21.50	21.94	20.14	21.05	20.57	21.47	21.91
	6H	20.81	21.61	21.27	22.05	22.52	20.57	21.36	21.03	21.81	22.27
	8H	21.04	21.78	21.50	22.23	22.69	20.76	21.50	21.22	21.95	22.42
	12H	21.21	21.87	21.69	22.35	22.82	20.94	21.61	21.42	22.08	22.56
8H	4H	20.40	21.15	20.87	21.59	22.06	20.38	21.13	20.85	21.57	22.04
	6H	21.19	21.81	21.69	22.30	22.78	20.93	21.54	21.43	22.04	22.51
	8H	21.50	22.06	22.02	22.57	23.06	21.21	21.76	21.72	22.27	22.76
	12H	21.77	22.26	22.28	22.76	23.32	21.50	21.99	22.01	22.48	23.05
12H	4H	20.42	21.08	20.90	21.56	22.03	20.41	21.07	20.89	21.55	22.02
	6H	21.23	21.78	21.74	22.29	22.78	20.98	21.53	21.50	22.05	22.53
	8H	21.60	22.09	22.11	22.58	23.15	21.32	21.81	21.83	22.30	22.87