

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: P1059129

Luminaire Tested: S123RDRP-S1165D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059129  
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-S1165D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

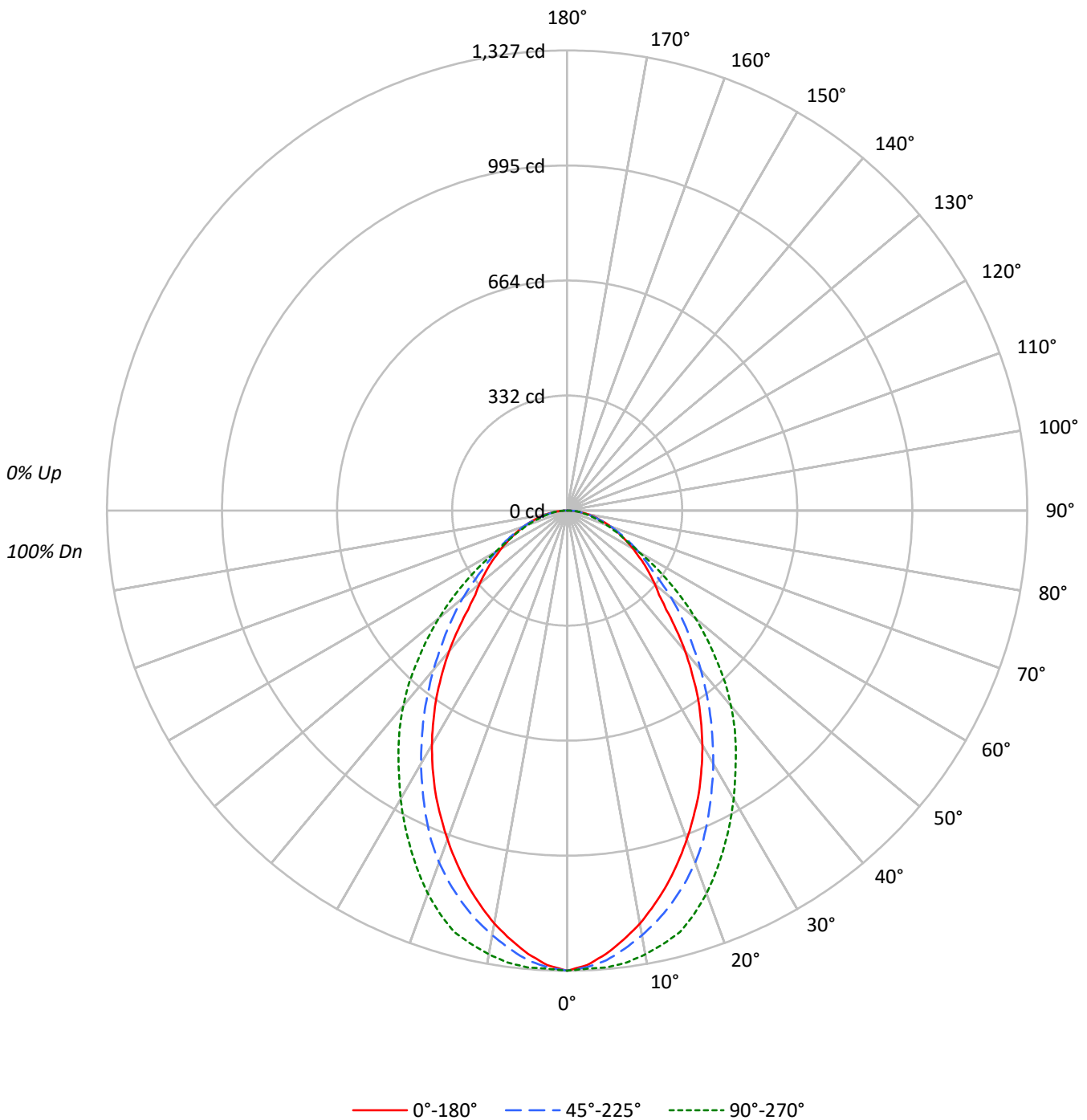
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2331.4 lumens  
Efficiency: N/A  
Efficacy: 55.8 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: P1059129

CATALOG NUMBER: S123RDRP-S1165D927-X4F0-XX-UDD-WVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1059129

CATALOG NUMBER: S123RDRP-S1165D927-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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51					51			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46					46			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41					41			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38					38			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34					34			
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32					32			

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

	0°	45°	90°
0°	15580	15580	15580
5°	15128	15344	15585
10°	14418	14826	15494
15°	13562	14228	15297
20°	12614	13498	14682
25°	11643	12516	13876
30°	10575	11426	13021
35°	9411	10311	12162
40°	8121	9190	11271
45°	6712	8134	10107
50°	6028	7176	8823
55°	5587	6125	7317
60°	5148	5578	5603
65°	4790	5043	4696
70°	4508	4587	4116
75°	4247	4092	3625
80°	4017	3706	3395
85°	3840	4150	3840

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10107 cd/sqm



TEST NUMBER: P1059129

CATALOG NUMBER: S123RDRP-S1165D927-X4F0-XX-UDD-WVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.9	5.3
10°-20°	331.1	14.2
20°-30°	447.9	19.2
30°-40°	460.2	19.7
40°-50°	386.5	16.6
50°-60°	277.1	11.9
60°-70°	176.4	7.6
70°-80°	96.9	4.2
80°-90°	32.3	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°	901.8	38.7
0°-40°	1362.1	58.4
0°-60°	2025.7	86.9
0°-90°	2331.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2331.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1327	1327	1327	1327	1327	
5°	1283	1306	1302	1311	1322	120
15°	1116	1146	1170	1221	1258	313
25°	899	933	966	1018	1071	412
35°	656	692	719	783	848	409
45°	404	440	490	561	609	319
55°	273	279	299	339	357	244
65°	172	183	182	171	169	172
75°	94	103	90	83	80	100
85°	28	30	31	32	28	31
90°	0	0	0	0	0	



TEST NUMBER: P1059129

CATALOG NUMBER: S123RDRP-S1165D927-X4F0-XX-UDD-WVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1326.8	1326.8	1326.8	1326.8	1326.8
2.5°	1312.0	1330.2	1317.7	1318.8	1322.2
5°	1283.4	1306.2	1301.7	1310.8	1322.2
7.5°	1248.0	1273.1	1274.3	1296.0	1314.2
10°	1209.2	1235.4	1243.4	1276.6	1299.4
12.5°	1163.5	1192.1	1209.2	1250.3	1280.0
15°	1115.6	1146.4	1170.4	1220.6	1258.3
17.5°	1063.0	1096.1	1127.0	1180.6	1219.5
20°	1009.4	1044.8	1080.2	1130.4	1174.9
22.5°	953.4	990.0	1026.5	1075.6	1124.7
25°	898.6	932.9	966.0	1018.5	1071.0
27.5°	839.2	874.6	903.2	961.4	1016.2
30°	779.9	815.3	842.7	903.2	960.3
32.5°	718.2	754.7	779.9	842.7	902.0
35°	656.5	691.9	719.3	783.3	848.4
37.5°	591.5	630.3	657.7	729.6	793.6
40°	529.8	566.3	599.5	674.8	735.3
42.5°	465.9	503.5	541.2	618.9	674.8
45°	404.2	439.6	489.8	560.6	608.6
47.5°	359.7	382.5	440.7	500.1	545.8
50°	330.0	339.1	392.8	445.3	483.0
52.5°	300.3	307.1	343.7	391.6	420.2
55°	272.9	278.6	299.2	339.1	357.4
57.5°	243.2	248.9	266.0	288.9	299.2
60°	219.2	223.8	237.5	240.9	238.6
62.5°	195.3	202.1	209.0	201.0	197.5
65°	172.4	182.7	181.5	171.3	169.0
67.5°	151.9	162.1	156.4	146.2	142.7
70°	131.3	141.6	133.6	123.3	119.9
72.5°	111.9	123.3	110.8	101.6	99.3
75°	93.6	102.8	90.2	83.4	79.9
77.5°	76.5	83.4	71.9	66.2	63.9
80°	59.4	63.9	54.8	51.4	50.2
82.5°	43.4	45.7	40.0	42.2	41.1
85°	28.5	29.7	30.8	32.0	28.5
87.5°	13.7	19.4	19.4	18.3	14.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059129

CATALOG NUMBER: S123RDRP-S1165D927-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	16.72	18.19	17.09	18.50	18.82	17.80	19.26	18.16	19.57	19.89
	3H	18.42	19.73	18.80	20.06	20.42	18.88	20.19	19.26	20.52	20.88
	4H	19.08	20.30	19.48	20.65	21.03	19.28	20.51	19.68	20.86	21.24
	6H	19.58	20.71	19.99	21.08	21.47	19.59	20.72	20.00	21.09	21.48
	8H	19.75	20.83	20.18	21.22	21.62	19.73	20.80	20.15	21.19	21.60
	12H	19.88	20.91	20.31	21.29	21.72	19.85	20.88	20.28	21.26	21.69
4H	2H	17.33	18.55	17.73	18.90	19.28	18.20	19.43	18.60	19.78	20.16
	3H	19.25	20.27	19.67	20.67	21.07	19.52	20.53	19.93	20.94	21.34
	4H	20.07	20.98	20.50	21.40	21.84	20.04	20.95	20.47	21.37	21.81
	6H	20.71	21.51	21.17	21.95	22.42	20.47	21.26	20.93	21.71	22.17
	8H	20.94	21.68	21.40	22.13	22.59	20.66	21.40	21.12	21.85	22.32
	12H	21.11	21.77	21.59	22.25	22.72	20.84	21.50	21.32	21.98	22.46
8H	4H	20.30	21.05	20.77	21.49	21.96	20.28	21.03	20.75	21.47	21.94
	6H	21.09	21.71	21.59	22.20	22.68	20.83	21.44	21.33	21.94	22.41
	8H	21.40	21.96	21.92	22.47	22.96	21.11	21.66	21.62	22.17	22.66
	12H	21.67	22.16	22.18	22.65	23.22	21.40	21.89	21.91	22.38	22.95
12H	4H	20.32	20.98	20.80	21.46	21.93	20.31	20.97	20.79	21.45	21.92
	6H	21.13	21.68	21.64	22.19	22.68	20.88	21.43	21.40	21.95	22.43
	8H	21.50	21.99	22.01	22.48	23.05	21.22	21.71	21.73	22.20	22.77