

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



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059453

Luminaire Tested: S123RDR-H1000D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059453  
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: S123RDR-H1000D927-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

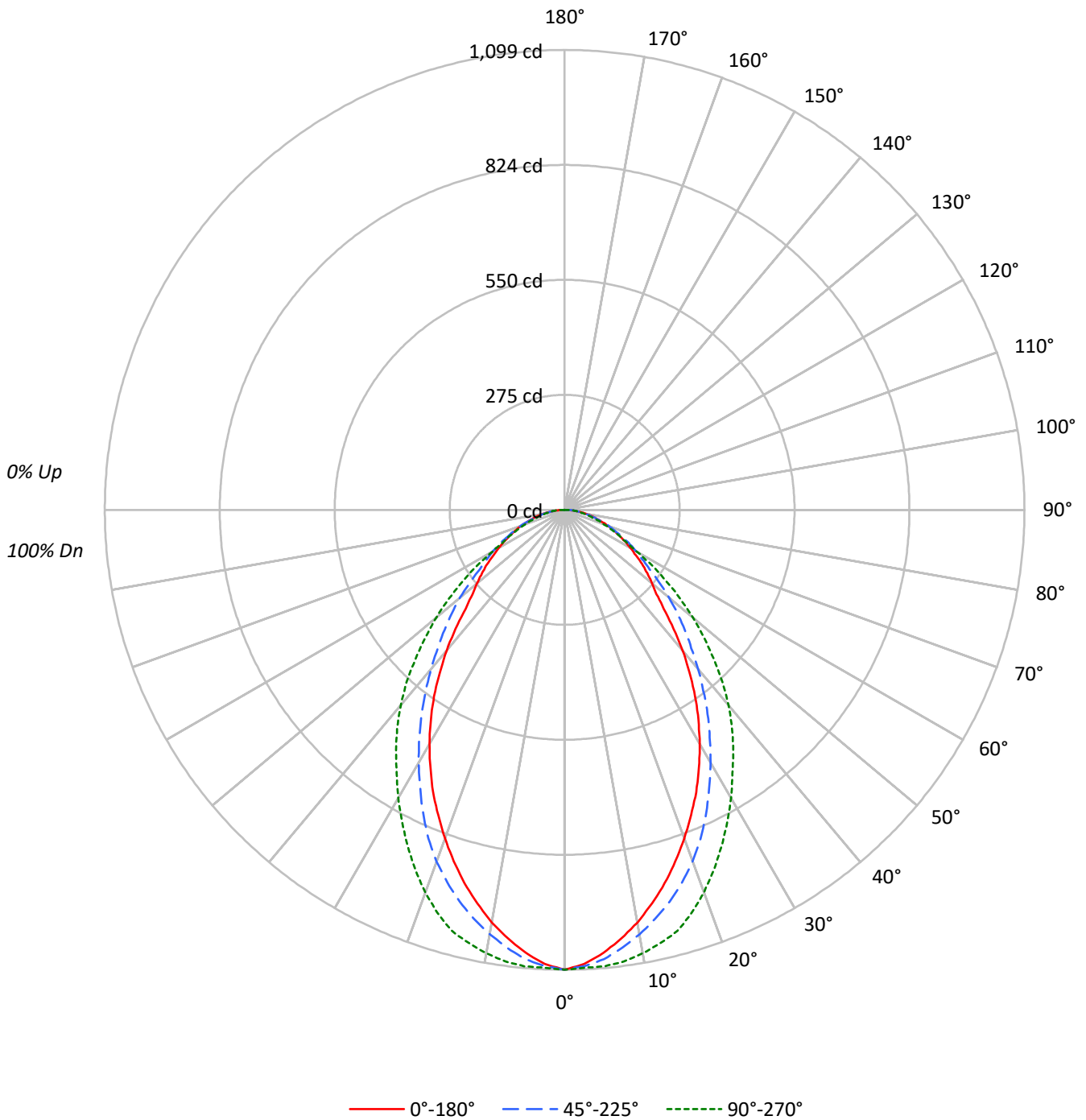
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1930.6 lumens  
Efficiency: N/A  
Efficacy: 61.9 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): 31.2  
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

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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	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°	12901	12901	12901
5°	12526	12706	12906
10°	11939	12277	12830
15°	11230	11781	12666
20°	10444	11176	12157
25°	9641	10364	11491
30°	8756	9461	10782
35°	7794	8539	10070
40°	6725	7609	9334
45°	5558	6736	8370
50°	4991	5943	7305
55°	4627	5071	6058
60°	4263	4619	4641
65°	3968	4176	3887
70°	3732	3797	3409
75°	3516	3389	3003
80°	3327	3070	2813
85°	3180	3436	3180

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8370 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.8	5.3
10°-20°	274.1	14.2
20°-30°	370.9	19.2
30°-40°	381.1	19.7
40°-50°	320.1	16.6
50°-60°	229.5	11.9
60°-70°	146.1	7.6
70°-80°	80.3	4.2
80°-90°	26.8	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°	746.8	38.7
0°-40°	1127.9	58.4
0°-60°	1677.4	86.9
0°-90°	1930.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1930.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1099	1099	1099	1099	1099	
5°	1063	1082	1078	1085	1095	100
15°	924	949	969	1011	1042	259
25°	744	772	800	843	887	341
35°	544	573	596	649	702	338
45°	335	364	406	464	504	264
55°	226	231	248	281	296	202
65°	143	151	150	142	140	142
75°	78	85	75	69	66	82
85°	24	25	26	26	24	26
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1098.7	1098.7	1098.7	1098.7	1098.7
2.5°	1086.4	1101.5	1091.1	1092.1	1094.9
5°	1062.7	1081.7	1077.9	1085.4	1094.9
7.5°	1033.4	1054.2	1055.2	1073.1	1088.3
10°	1001.3	1023.0	1029.6	1057.1	1076.0
12.5°	963.5	987.1	1001.3	1035.3	1059.9
15°	923.8	949.3	969.1	1010.7	1041.9
17.5°	880.3	907.7	933.2	977.6	1009.8
20°	835.8	865.1	894.4	936.0	972.9
22.5°	789.5	819.7	850.0	890.7	931.3
25°	744.1	772.5	799.9	843.4	886.9
27.5°	694.9	724.3	747.9	796.1	841.5
30°	645.8	675.1	697.8	747.9	795.2
32.5°	594.7	625.0	645.8	697.8	746.9
35°	543.7	573.0	595.7	648.6	702.5
37.5°	489.8	521.9	544.6	604.2	657.1
40°	438.7	469.0	496.4	558.8	608.9
42.5°	385.8	417.0	448.2	512.5	558.8
45°	334.7	364.0	405.6	464.2	504.0
47.5°	297.8	316.7	365.0	414.1	451.9
50°	273.2	280.8	325.3	368.7	399.9
52.5°	248.7	254.3	284.6	324.3	347.9
55°	226.0	230.7	247.7	280.8	295.9
57.5°	201.4	206.1	220.3	239.2	247.7
60°	181.5	185.3	196.7	199.5	197.6
62.5°	161.7	167.4	173.0	166.4	163.6
65°	142.8	151.3	150.3	141.8	139.9
67.5°	125.8	134.3	129.5	121.0	118.2
70°	108.7	117.2	110.6	102.1	99.3
72.5°	92.7	102.1	91.7	84.1	82.3
75°	77.5	85.1	74.7	69.0	66.2
77.5°	63.3	69.0	59.6	54.8	52.9
80°	49.2	52.9	45.4	42.5	41.6
82.5°	35.9	37.8	33.1	35.0	34.0
85°	23.6	24.6	25.5	26.5	23.6
87.5°	11.3	16.1	16.1	15.1	12.3
90°	0.0	0.0	0.0	0.0	0.0



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**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	16.07	17.53	16.43	17.85	18.16	17.14	18.60	17.50	18.92	19.23
	3H	17.77	19.08	18.15	19.41	19.77	18.22	19.53	18.60	19.86	20.23
	4H	18.42	19.65	18.82	20.00	20.38	18.63	19.85	19.03	20.20	20.58
	6H	18.92	20.06	19.34	20.42	20.82	18.93	20.07	19.35	20.44	20.83
	8H	19.10	20.17	19.52	20.56	20.97	19.07	20.15	19.50	20.54	20.94
	12H	19.22	20.25	19.65	20.64	21.07	19.19	20.22	19.62	20.60	21.03
4H	2H	16.67	17.90	17.07	18.25	18.63	17.54	18.77	17.94	19.12	19.50
	3H	18.60	19.62	19.01	20.02	20.42	18.86	19.88	19.27	20.28	20.68
	4H	19.41	20.33	19.84	20.74	21.18	19.38	20.30	19.81	20.71	21.15
	6H	20.06	20.85	20.52	21.30	21.76	19.81	20.61	20.27	21.05	21.51
	8H	20.28	21.02	20.74	21.47	21.94	20.00	20.75	20.47	21.19	21.66
	12H	20.45	21.12	20.93	21.60	22.07	20.18	20.85	20.67	21.33	21.80
8H	4H	19.65	20.39	20.11	20.84	21.31	19.62	20.37	20.09	20.81	21.28
	6H	20.43	21.05	20.93	21.54	22.02	20.17	20.79	20.67	21.28	21.76
	8H	20.75	21.30	21.26	21.81	22.30	20.45	21.00	20.96	21.51	22.00
	12H	21.02	21.51	21.53	22.00	22.56	20.74	21.23	21.25	21.72	22.29
12H	4H	19.66	20.32	20.14	20.80	21.27	19.65	20.32	20.13	20.80	21.27
	6H	20.47	21.02	20.98	21.53	22.02	20.22	20.78	20.74	21.29	21.78
	8H	20.84	21.33	21.36	21.83	22.39	20.57	21.05	21.08	21.55	22.11