

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: P1059073

Luminaire Tested: S123RDRP-S1000D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059073  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1000D940-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

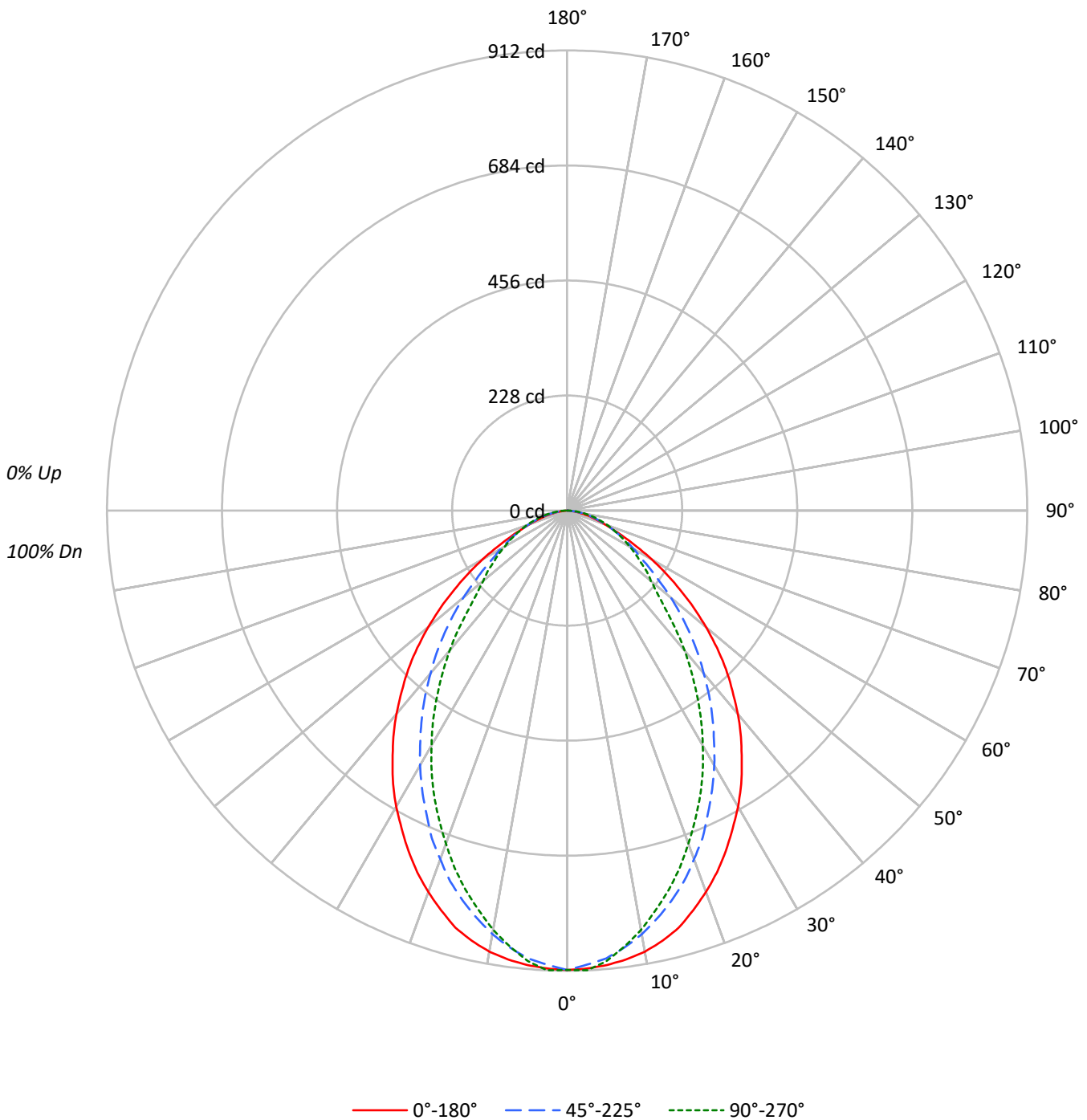
Lumens per Lamp: N/A  
Luminaire Lumens: 1592.6 lumens  
Efficiency: N/A  
Efficacy: 45.5 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	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	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	10691	10691	10691
5°	10656	10500	10565
10°	10583	10165	10061
15°	10404	9725	9459
20°	10052	9190	8780
25°	9642	8564	8082
30°	9185	7909	7287
35°	8644	7200	6448
40°	8069	6458	5552
45°	7396	5706	4562
50°	6558	4898	3959
55°	5579	4101	3630
60°	4549	3572	3368
65°	3468	3162	3131
70°	2705	2819	2932
75°	2187	2532	2731
80°	1630	2069	2516
85°	889	1320	2210

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7396 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.5	5.3
10°-20°	227.4	14.3
20°-30°	309.2	19.4
30°-40°	320.5	20.1
40°-50°	270.3	17.0
50°-60°	191.9	12.0
60°-70°	117.3	7.4
70°-80°	58.3	3.7
80°-90°	13.2	0.8
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°	621.1	39.0
0°-40°	941.5	59.1
0°-60°	1403.7	88.1
0°-90°	1592.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1592.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	904	904	891	896	896	86
15°	856	839	800	786	778	240
25°	744	711	661	637	624	342
35°	603	557	502	467	450	377
45°	445	398	344	297	275	342
55°	272	244	200	183	177	245
65°	125	120	114	114	113	127
75°	48	51	56	58	60	52
85°	7	8	10	14	16	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	910.5	910.5	910.5	910.5	910.5
2.5°	908.4	909.5	900.7	910.5	911.6
5°	904.0	904.0	890.8	896.3	896.3
7.5°	897.4	895.2	873.3	873.3	871.2
10°	887.6	881.0	852.5	847.1	843.8
12.5°	873.3	862.4	827.4	817.5	811.0
15°	855.8	839.4	800.0	785.8	778.1
17.5°	830.7	814.2	770.5	750.8	742.0
20°	804.4	780.3	735.4	715.7	702.6
22.5°	775.9	745.3	701.5	677.4	663.2
25°	744.2	711.4	661.0	636.9	623.8
27.5°	710.3	674.2	622.7	595.4	582.2
30°	677.4	635.9	583.3	552.7	537.4
32.5°	642.4	595.4	541.7	510.0	494.7
35°	603.0	557.1	502.3	467.3	449.8
37.5°	565.8	518.8	461.8	424.6	404.9
40°	526.4	479.4	421.3	383.0	362.2
42.5°	484.8	440.0	383.0	338.2	318.5
45°	445.4	398.4	343.6	296.6	274.7
47.5°	402.7	359.0	305.3	257.2	241.9
50°	359.0	318.5	268.1	224.4	216.7
52.5°	316.3	282.4	230.9	202.5	199.2
55°	272.5	244.1	200.3	182.8	177.3
57.5°	232.0	211.2	171.8	163.1	160.9
60°	193.7	176.2	152.1	146.7	143.4
62.5°	156.5	146.7	132.4	130.2	128.0
65°	124.8	120.4	113.8	113.8	112.7
67.5°	98.5	98.5	97.4	99.6	98.5
70°	78.8	79.9	82.1	84.3	85.4
72.5°	62.4	65.7	67.9	71.1	72.2
75°	48.2	51.4	55.8	58.0	60.2
77.5°	35.0	38.3	42.7	46.0	48.2
80°	24.1	26.3	30.6	35.0	37.2
82.5°	15.3	16.4	19.7	24.1	26.3
85°	6.6	7.7	9.8	14.2	16.4
87.5°	0.0	0.0	1.1	4.4	7.7
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	17.04	18.49	17.41	18.80	19.12	15.14	16.59	15.50	16.90	17.22
	3H	17.94	19.23	18.32	19.56	19.93	16.71	18.01	17.09	18.34	18.70
	4H	18.22	19.43	18.62	19.78	20.16	17.31	18.52	17.71	18.87	19.25
	6H	18.37	19.49	18.78	19.86	20.25	17.76	18.88	18.17	19.24	19.64
	8H	18.39	19.46	18.82	19.85	20.25	17.91	18.97	18.34	19.36	19.76
	12H	18.39	19.40	18.82	19.79	20.22	18.01	19.02	18.44	19.41	19.84
4H	2H	17.28	18.50	17.69	18.85	19.23	15.68	16.89	16.08	17.24	17.62
	3H	18.40	19.40	18.81	19.80	20.20	17.45	18.46	17.87	18.86	19.26
	4H	18.79	19.69	19.22	20.10	20.54	18.17	19.06	18.60	19.48	19.92
	6H	19.03	19.81	19.49	20.25	20.72	18.74	19.52	19.20	19.96	20.42
	8H	19.07	19.80	19.54	20.25	20.71	18.93	19.66	19.40	20.10	20.57
	12H	19.08	19.73	19.57	20.21	20.68	19.07	19.72	19.55	20.20	20.67
8H	4H	18.95	19.67	19.41	20.12	20.59	18.38	19.10	18.84	19.55	20.02
	6H	19.26	19.86	19.76	20.35	20.83	19.05	19.65	19.55	20.14	20.62
	8H	19.34	19.87	19.85	20.38	20.87	19.31	19.85	19.83	20.36	20.85
	12H	19.37	19.84	19.88	20.34	20.90	19.52	19.99	20.03	20.48	21.05
12H	4H	18.95	19.60	19.43	20.08	20.55	18.37	19.02	18.86	19.50	19.97
	6H	19.27	19.81	19.79	20.32	20.81	19.06	19.60	19.58	20.11	20.60
	8H	19.39	19.86	19.90	20.36	20.92	19.36	19.84	19.87	20.33	20.90