

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: P1059128

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059128  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
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-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

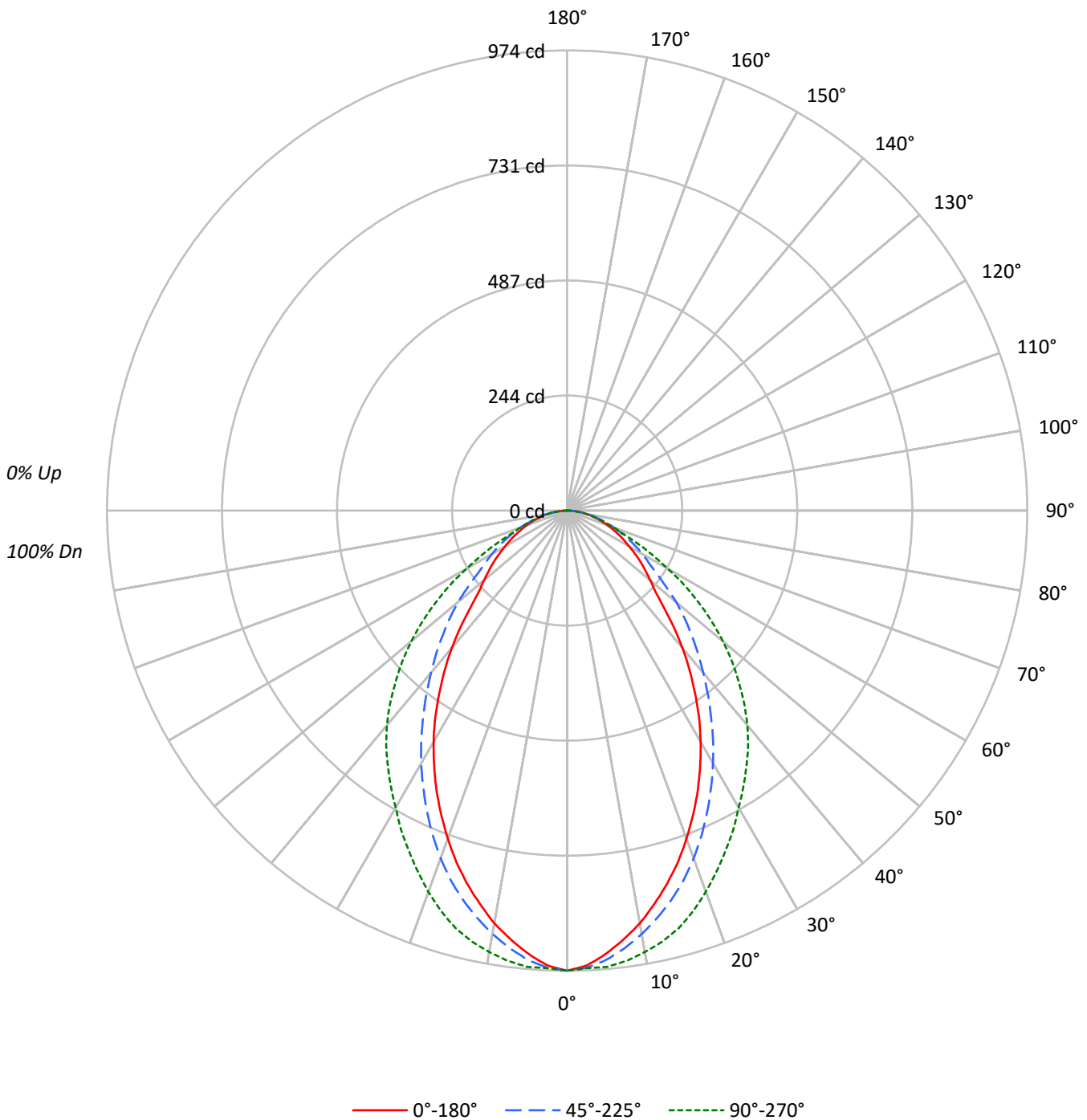
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1759.2 lumens  
Efficiency: N/A  
Efficacy: 42.1 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
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 (A<sub>in</sub>): 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	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	100	97	100	97	94	96	93	91	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59					57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53					51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43					41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33					31				

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

	0°	45°	90°
0°	11436	11436	11436
5°	11102	11251	11425
10°	10577	10850	11313
15°	9938	10368	11117
20°	9231	9787	10729
25°	8476	9098	10281
30°	7664	8375	9845
35°	6759	7610	9477
40°	5811	6861	9101
45°	4778	6181	8532
50°	4193	5506	7863
55°	3880	4698	6965
60°	3567	4317	5766
65°	3331	3965	4537
70°	3135	3605	3605
75°	2954	3316	3108
80°	2779	3009	2624
85°	2614	2924	1994

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8532 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.1	5.1
10°-20°	241.4	13.7
20°-30°	327.3	18.6
30°-40°	342.2	19.5
40°-50°	296.8	16.9
50°-60°	220.8	12.6
60°-70°	141.7	8.1
70°-80°	76.0	4.3
80°-90°	23.0	1.3
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°	658.8	37.4
0°-40°	1001.0	56.9
0°-60°	1518.6	86.3
0°-90°	1759.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1759.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	942	958	954	961	969	88
15°	818	837	853	887	914	229
25°	654	675	702	749	794	300
35°	472	494	531	598	661	294
45°	288	309	372	452	514	226
55°	190	194	230	295	340	170
65°	120	130	143	152	163	119
75°	65	75	73	70	68	69
85°	19	24	22	18	15	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	973.9	973.9	973.9	973.9	973.9
2.5°	963.6	977.3	968.2	968.2	969.3
5°	941.9	957.9	954.5	961.3	969.3
7.5°	915.7	932.8	933.9	949.9	961.3
10°	887.1	904.3	910.0	932.8	948.8
12.5°	852.9	872.3	882.6	911.1	933.9
15°	817.5	836.9	852.9	887.1	914.5
17.5°	779.8	799.2	819.8	858.6	888.3
20°	738.7	759.3	783.2	822.0	858.6
22.5°	696.5	718.2	743.3	785.5	826.6
25°	654.2	674.8	702.2	749.0	793.5
27.5°	609.7	631.4	659.9	711.3	761.5
30°	565.2	586.9	617.7	672.5	726.1
32.5°	519.5	541.2	574.3	635.9	694.2
35°	471.5	494.4	530.9	598.3	661.1
37.5°	425.9	447.6	488.7	562.9	629.1
40°	379.1	401.9	447.6	527.5	593.7
42.5°	333.4	356.2	409.9	489.8	554.9
45°	287.7	309.4	372.2	452.1	513.8
47.5°	252.3	268.3	336.8	412.2	473.8
50°	229.5	235.2	301.4	373.3	430.4
52.5°	208.9	213.5	262.6	334.5	385.9
55°	189.5	194.1	229.5	294.6	340.2
57.5°	170.1	175.8	204.4	253.5	294.6
60°	151.9	158.7	183.8	216.9	245.5
62.5°	135.9	143.9	163.3	183.8	203.2
65°	119.9	130.2	142.7	151.9	163.3
67.5°	105.0	116.5	123.3	125.6	126.7
70°	91.3	102.8	105.0	105.0	105.0
72.5°	77.6	90.2	87.9	86.8	85.6
75°	65.1	75.4	73.1	69.6	68.5
77.5°	52.5	61.7	58.2	55.9	52.5
80°	41.1	48.0	44.5	42.2	38.8
82.5°	30.8	35.4	32.0	29.7	26.3
85°	19.4	24.0	21.7	18.3	14.8
87.5°	10.3	13.7	11.4	10.3	5.7
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	15.25	16.73	15.62	17.05	17.36	18.01	19.49	18.37	19.81	20.12
	3H	16.96	18.29	17.34	18.62	18.98	19.03	20.36	19.41	20.69	21.05
	4H	17.62	18.87	18.02	19.22	19.60	19.39	20.64	19.79	20.99	21.37
	6H	18.12	19.27	18.54	19.64	20.03	19.65	20.80	20.06	21.17	21.56
	8H	18.30	19.40	18.73	19.79	20.19	19.72	20.81	20.15	21.20	21.61
	12H	18.43	19.48	18.86	19.86	20.29	19.76	20.80	20.19	21.18	21.61
4H	2H	16.03	17.27	16.43	17.62	18.00	18.28	19.53	18.68	19.87	20.25
	3H	17.95	18.99	18.36	19.39	19.79	19.53	20.57	19.94	20.97	21.37
	4H	18.76	19.69	19.20	20.11	20.55	20.02	20.95	20.45	21.37	21.80
	6H	19.40	20.21	19.86	20.66	21.12	20.40	21.21	20.86	21.65	22.11
	8H	19.63	20.39	20.10	20.83	21.30	20.51	21.27	20.98	21.71	22.18
	12H	19.81	20.48	20.29	20.96	21.43	20.58	21.26	21.07	21.74	22.21
8H	4H	19.08	19.84	19.55	20.28	20.75	20.21	20.97	20.68	21.41	21.88
	6H	19.88	20.50	20.37	20.99	21.47	20.70	21.32	21.20	21.81	22.29
	8H	20.20	20.76	20.72	21.27	21.76	20.87	21.44	21.39	21.95	22.43
	12H	20.48	20.98	20.99	21.47	22.04	21.01	21.50	21.52	22.00	22.56
12H	4H	19.11	19.78	19.59	20.26	20.73	20.23	20.90	20.71	21.38	21.85
	6H	19.93	20.49	20.45	21.00	21.49	20.74	21.30	21.25	21.81	22.30
	8H	20.32	20.82	20.83	21.31	21.88	20.97	21.46	21.48	21.95	22.52