

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: P1060746

Luminaire Tested: S124RDR-H1195D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060746  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H1195D927-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

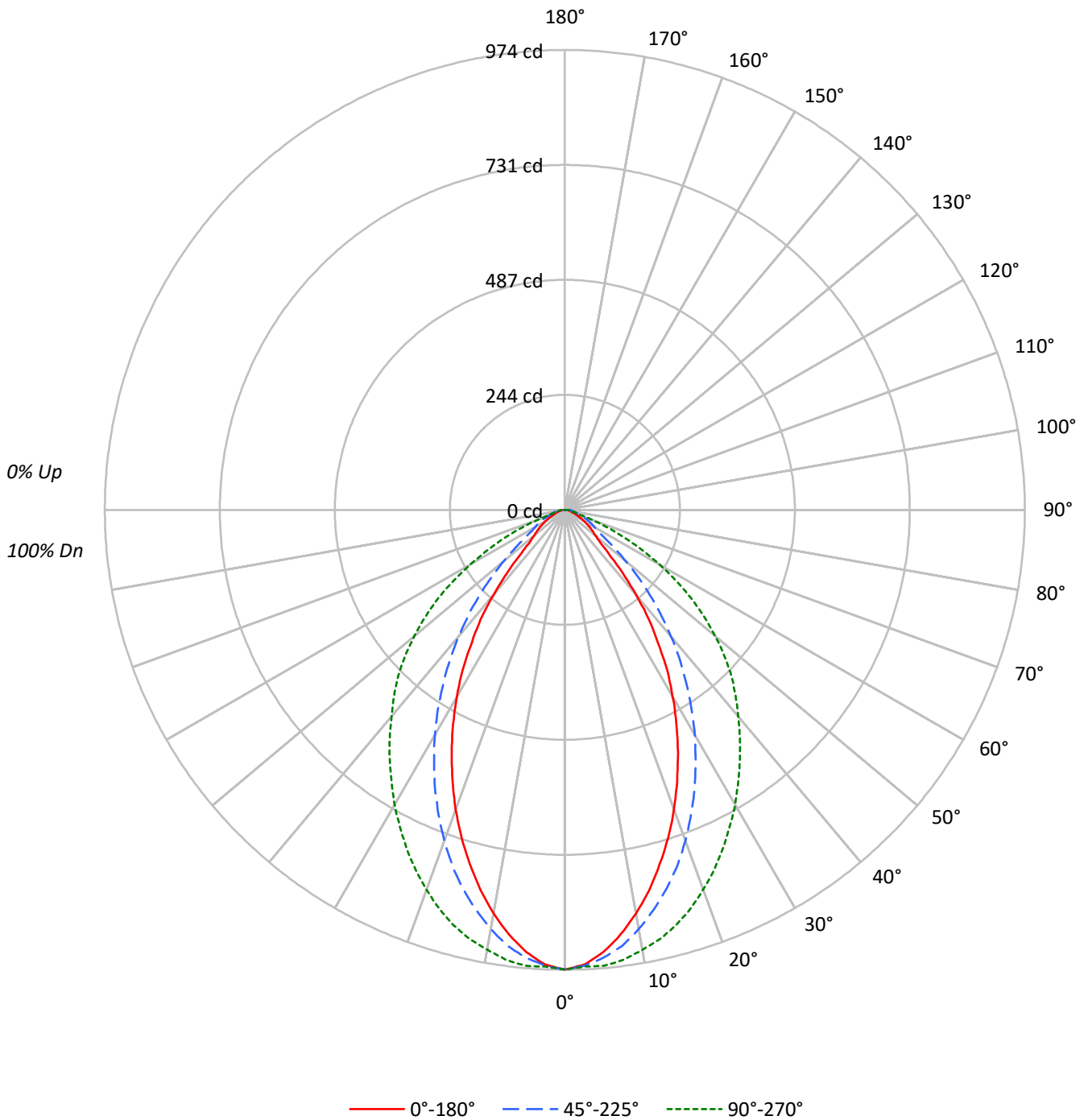
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1377.9 lumens  
Efficiency: N/A  
Efficacy: 37.7 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.5  
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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

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

	0°	45°	90°
0°	8383	8383	8383
5°	8124	8227	8377
10°	7590	7884	8274
15°	6923	7408	8116
20°	6190	6838	7844
25°	5384	6180	7523
30°	4542	5473	7170
35°	3613	4711	6792
40°	2629	3925	6419
45°	1589	3099	6080
50°	1136	2244	5566
55°	964	1519	4915
60°	787	1237	3971
65°	621	1108	2859
70°	521	932	1506
75°	469	868	759
80°	486	863	754
85°	642	1294	860

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6080 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.6	6.5
10°-20°	234.9	17.0
20°-30°	304.6	22.1
30°-40°	293.2	21.3
40°-50°	218.1	15.8
50°-60°	134.1	9.7
60°-70°	65.9	4.8
70°-80°	25.7	1.9
80°-90°	11.7	0.9
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°	629.1	45.7
0°-40°	922.3	66.9
0°-60°	1274.6	92.5
0°-90°	1377.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1377.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	940	954	952	960	969	87
15°	777	802	831	881	910	217
25°	567	597	650	732	792	259
35°	344	376	448	560	646	215
45°	130	162	254	393	499	108
55°	64	66	101	231	327	58
65°	30	33	54	87	140	31
75°	14	25	26	24	23	15
85°	6	12	13	13	9	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	973.5	973.5	973.5	973.5	973.5
2.5°	963.7	974.6	965.9	967.0	968.1
5°	939.8	953.9	951.7	960.4	969.1
7.5°	907.1	923.5	931.1	948.5	960.4
10°	868.0	886.5	901.7	930.0	946.3
12.5°	824.5	846.2	868.0	906.1	931.1
15°	776.6	801.6	831.0	881.0	910.4
17.5°	727.7	752.7	790.8	848.4	885.4
20°	675.5	702.7	746.2	810.3	856.0
22.5°	621.1	650.4	698.3	771.2	825.6
25°	566.7	597.1	650.4	732.0	791.8
27.5°	512.3	541.7	599.3	690.7	756.0
30°	456.8	487.3	550.4	646.1	721.1
32.5°	403.5	431.8	499.3	603.7	683.1
35°	343.7	376.3	448.1	560.2	646.1
37.5°	292.6	322.0	399.2	516.7	609.1
40°	233.9	266.5	349.2	474.2	571.0
42.5°	179.5	212.1	301.3	431.8	535.1
45°	130.5	162.1	254.5	392.7	499.3
47.5°	99.0	117.5	208.8	354.6	459.0
50°	84.8	90.3	167.5	313.3	415.5
52.5°	75.1	77.2	130.5	271.9	372.0
55°	64.2	66.3	101.2	230.6	327.4
57.5°	54.4	55.5	81.6	191.4	279.5
60°	45.7	46.8	71.8	153.4	230.6
62.5°	38.1	39.2	64.2	118.6	183.8
65°	30.5	32.6	54.4	87.0	140.3
67.5°	25.0	29.4	45.7	60.9	97.9
70°	20.7	28.3	37.0	42.4	59.8
72.5°	17.4	26.1	31.5	30.5	29.4
75°	14.1	25.0	26.1	23.9	22.8
77.5°	12.0	21.8	21.8	19.6	18.5
80°	9.8	17.4	17.4	17.4	15.2
82.5°	8.7	14.1	15.2	15.2	12.0
85°	6.5	12.0	13.1	13.1	8.7
87.5°	4.4	10.9	12.0	10.9	6.5
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	7.17	8.52	7.54	8.83	9.14	16.34	17.68	16.70	17.99	18.31
	3H	8.29	9.48	8.67	9.81	10.17	16.85	18.04	17.23	18.37	18.73
	4H	8.80	9.91	9.20	10.26	10.65	16.87	17.98	17.27	18.33	18.71
	6H	9.24	10.26	9.65	10.63	11.02	16.88	17.90	17.29	18.27	18.66
	8H	9.43	10.39	9.86	10.79	11.19	16.88	17.85	17.31	18.24	18.64
	12H	9.61	10.53	10.04	10.92	11.35	16.88	17.81	17.31	18.19	18.62
4H	2H	8.32	9.43	8.72	9.78	10.16	16.23	17.34	16.63	17.69	18.07
	3H	9.66	10.57	10.07	10.97	11.38	16.82	17.73	17.23	18.13	18.54
	4H	10.39	11.21	10.83	11.62	12.07	16.88	17.69	17.31	18.11	18.55
	6H	11.00	11.71	11.47	12.15	12.62	16.95	17.66	17.42	18.10	18.57
	8H	11.25	11.90	11.71	12.35	12.82	16.98	17.64	17.45	18.09	18.56
	12H	11.48	12.06	11.97	12.54	13.02	17.03	17.61	17.51	18.09	18.56
8H	4H	10.86	11.52	11.33	11.96	12.43	16.84	17.49	17.31	17.94	18.41
	6H	11.71	12.25	12.21	12.74	13.23	16.96	17.50	17.47	18.00	18.48
	8H	12.12	12.60	12.64	13.11	13.61	17.05	17.53	17.57	18.05	18.54
	12H	12.54	12.97	13.05	13.46	14.03	17.17	17.60	17.68	18.09	18.66
12H	4H	10.91	11.49	11.40	11.98	12.45	16.81	17.39	17.30	17.87	18.35
	6H	11.84	12.33	12.36	12.84	13.33	16.95	17.43	17.47	17.94	18.44
	8H	12.36	12.79	12.88	13.29	13.86	17.08	17.51	17.59	18.00	18.57