

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: P1061917

Luminaire Tested: S125RDR-H1090D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061917  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-46)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H1090D950-X4F0-XX-UDD-WVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

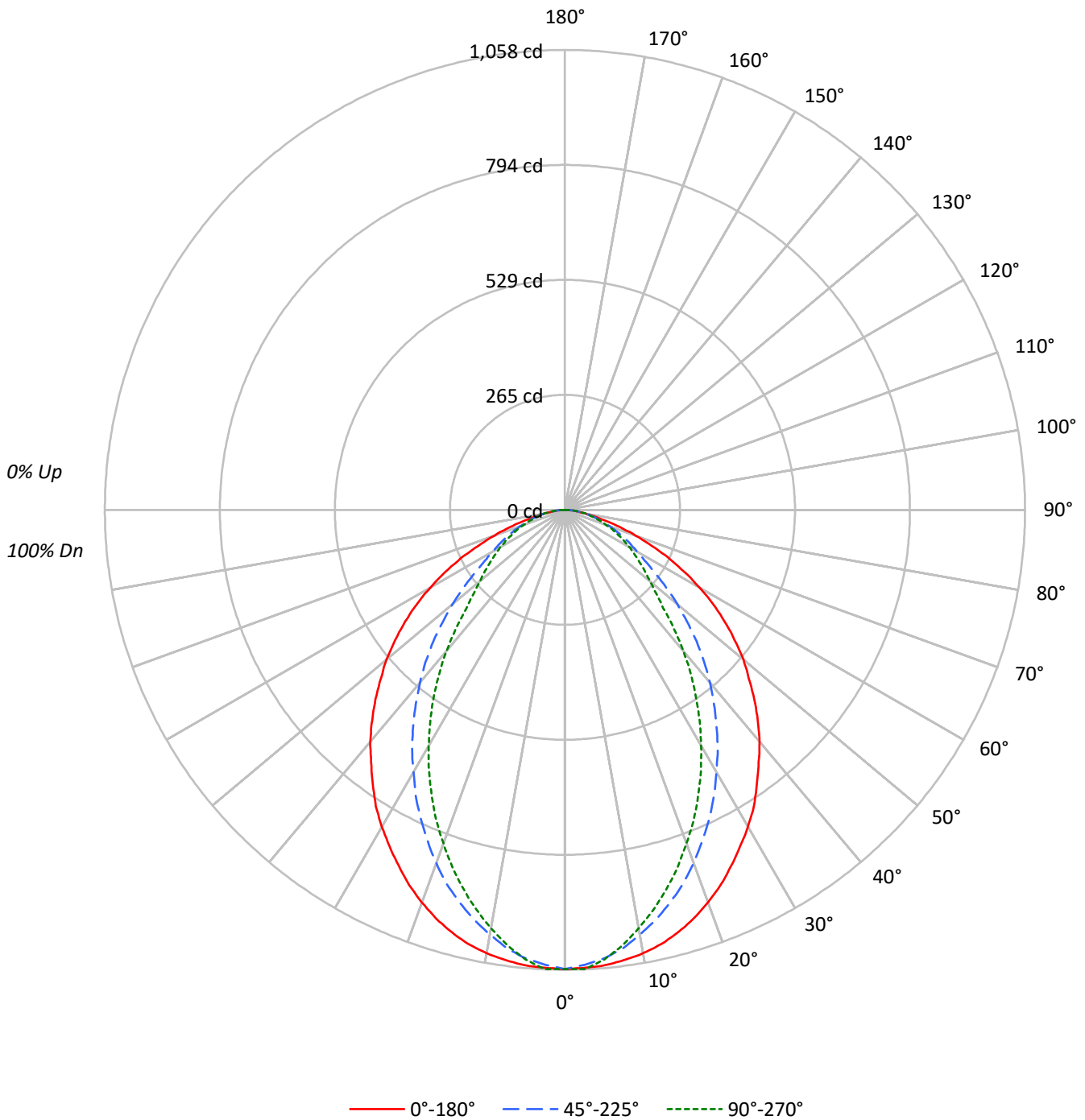
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2001.5 lumens  
Efficiency: N/A  
Efficacy: 64.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' 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									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	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	100	97	97	97	94	94	94	91	91	91	87																
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	84	84	84	82	82	82	80	80	80	75																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	74	74	74	72	72	72	70	70	70	65																
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65	65	65	64	64	64	62	62	62	60	60	60	57																
4	86	76	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57	57	57	63	63	63	61	61	61	59	59	59	50																
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50	50	50	57	57	57	55	55	55	53	53	53	45																
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45	45	45	53	53	53	51	51	51	49	49	49	40																
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40	40	40	47	47	47	45	45	45	43	43	43	36																
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36	36	36	43	43	43	41	41	41	39	39	39	33																
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33	33	33	35	35	35	33	33	33	31	31	31	30																
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30	30	30	31	31	31	29	29	29	27	27	27	25																

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

	0°	45°	90°
0°	7274	7274	7274
5°	7271	7160	7176
10°	7242	6938	6833
15°	7172	6664	6435
20°	7044	6338	5985
25°	6868	5961	5508
30°	6694	5536	4980
35°	6470	5110	4416
40°	6258	4660	3805
45°	5998	4167	3117
50°	5738	3613	2728
55°	5384	3015	2520
60°	4913	2638	2353
65°	4298	2411	2186
70°	3487	2170	2033
75°	2503	1985	1891
80°	1729	1772	1772
85°	1272	1540	1627

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5998 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.2	4.9
10°-20°	265.7	13.3
20°-30°	367.2	18.3
30°-40°	391.2	19.5
40°-50°	343.6	17.2
50°-60°	260.6	13.0
60°-70°	169.2	8.5
70°-80°	83.8	4.2
80°-90°	21.9	1.1
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°	731.2	36.5
0°-40°	1122.3	56.1
0°-60°	1726.5	86.3
0°-90°	2001.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2001.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1056	1056	1056	1056	1056	
5°	1052	1050	1036	1039	1038	100
15°	1006	983	935	913	903	283
25°	904	855	785	744	725	417
35°	770	699	608	553	525	482
45°	616	530	428	351	320	475
55°	448	360	251	217	210	400
65°	264	196	148	136	134	261
75°	94	83	75	72	71	105
85°	16	18	20	20	21	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1056.5	1056.5	1056.5	1056.5	1056.5
2.5°	1054.2	1056.5	1047.4	1055.4	1057.7
5°	1052.0	1049.7	1035.9	1039.3	1038.2
7.5°	1045.1	1040.5	1017.5	1015.2	1010.7
10°	1035.9	1024.4	992.3	984.3	977.4
12.5°	1023.3	1004.9	965.9	949.9	941.8
15°	1006.1	983.1	934.9	913.1	902.8
17.5°	985.4	953.3	902.8	873.0	861.5
20°	961.3	923.5	865.0	830.6	816.8
22.5°	934.9	890.2	824.8	788.1	773.2
25°	904.0	854.6	784.7	744.5	725.0
27.5°	873.0	817.9	742.2	697.5	676.8
30°	842.0	778.9	696.3	648.2	626.4
32.5°	808.8	738.8	653.9	601.1	575.9
35°	769.8	698.6	608.0	552.9	525.4
37.5°	731.9	656.2	563.3	501.3	474.9
40°	696.3	616.0	518.5	450.8	423.3
42.5°	656.2	573.6	473.8	402.7	371.7
45°	616.0	530.0	427.9	351.0	320.1
47.5°	573.6	488.7	379.7	304.0	283.4
50°	535.7	446.2	337.3	268.4	254.7
52.5°	492.1	405.0	293.7	240.9	231.7
55°	448.5	360.2	251.2	216.8	209.9
57.5°	403.8	320.1	218.0	196.2	189.3
60°	356.8	278.8	191.6	174.4	170.9
62.5°	309.7	236.3	168.6	156.0	151.4
65°	263.8	196.2	148.0	136.5	134.2
67.5°	216.8	159.5	127.3	119.3	118.2
70°	173.2	129.6	107.8	103.2	101.0
72.5°	133.1	103.2	90.6	87.2	86.0
75°	94.1	82.6	74.6	72.3	71.1
77.5°	63.1	63.1	59.7	57.4	58.5
80°	43.6	45.9	44.7	44.7	44.7
82.5°	28.7	31.0	32.1	32.1	32.1
85°	16.1	18.4	19.5	19.5	20.6
87.5°	5.7	6.9	8.0	9.2	9.2
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	17.45	18.94	17.81	19.25	19.57	13.69	15.18	14.06	15.50	15.81
	3H	18.76	20.10	19.14	20.42	20.79	15.27	16.61	15.65	16.94	17.30
	4H	19.13	20.38	19.53	20.73	21.11	15.88	17.13	16.28	17.48	17.86
	6H	19.30	20.46	19.72	20.83	21.22	16.35	17.50	16.76	17.87	18.26
	8H	19.34	20.44	19.77	20.83	21.23	16.51	17.61	16.93	18.00	18.40
	12H	19.35	20.41	19.78	20.79	21.22	16.62	17.67	17.05	18.05	18.48
4H	2H	17.56	18.81	17.96	19.16	19.54	14.35	15.60	14.75	15.95	16.33
	3H	19.05	20.08	19.46	20.49	20.89	16.13	17.17	16.54	17.57	17.97
	4H	19.52	20.46	19.96	20.87	21.31	16.85	17.78	17.28	18.20	18.64
	6H	19.81	20.62	20.27	21.06	21.52	17.44	18.25	17.90	18.69	19.15
	8H	19.88	20.63	20.34	21.08	21.55	17.64	18.40	18.11	18.85	19.31
	12H	19.92	20.59	20.40	21.07	21.54	17.80	18.47	18.28	18.95	19.42
8H	4H	19.61	20.36	20.07	20.81	21.28	17.16	17.92	17.63	18.36	18.83
	6H	19.97	20.59	20.47	21.09	21.56	17.87	18.49	18.37	18.98	19.46
	8H	20.09	20.65	20.60	21.16	21.65	18.15	18.71	18.66	19.22	19.71
	12H	20.17	20.67	20.68	21.16	21.73	18.38	18.87	18.89	19.36	19.93
12H	4H	19.60	20.28	20.08	20.75	21.23	17.19	17.86	17.67	18.34	18.81
	6H	19.97	20.53	20.49	21.04	21.53	17.92	18.48	18.43	18.99	19.48
	8H	20.13	20.63	20.64	21.12	21.69	18.25	18.75	18.77	19.24	19.81