

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: P1061869

Luminaire Tested: S125RDR-H1090D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061869  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-47)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H1090D850-X4F0-XX-UDD-SVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

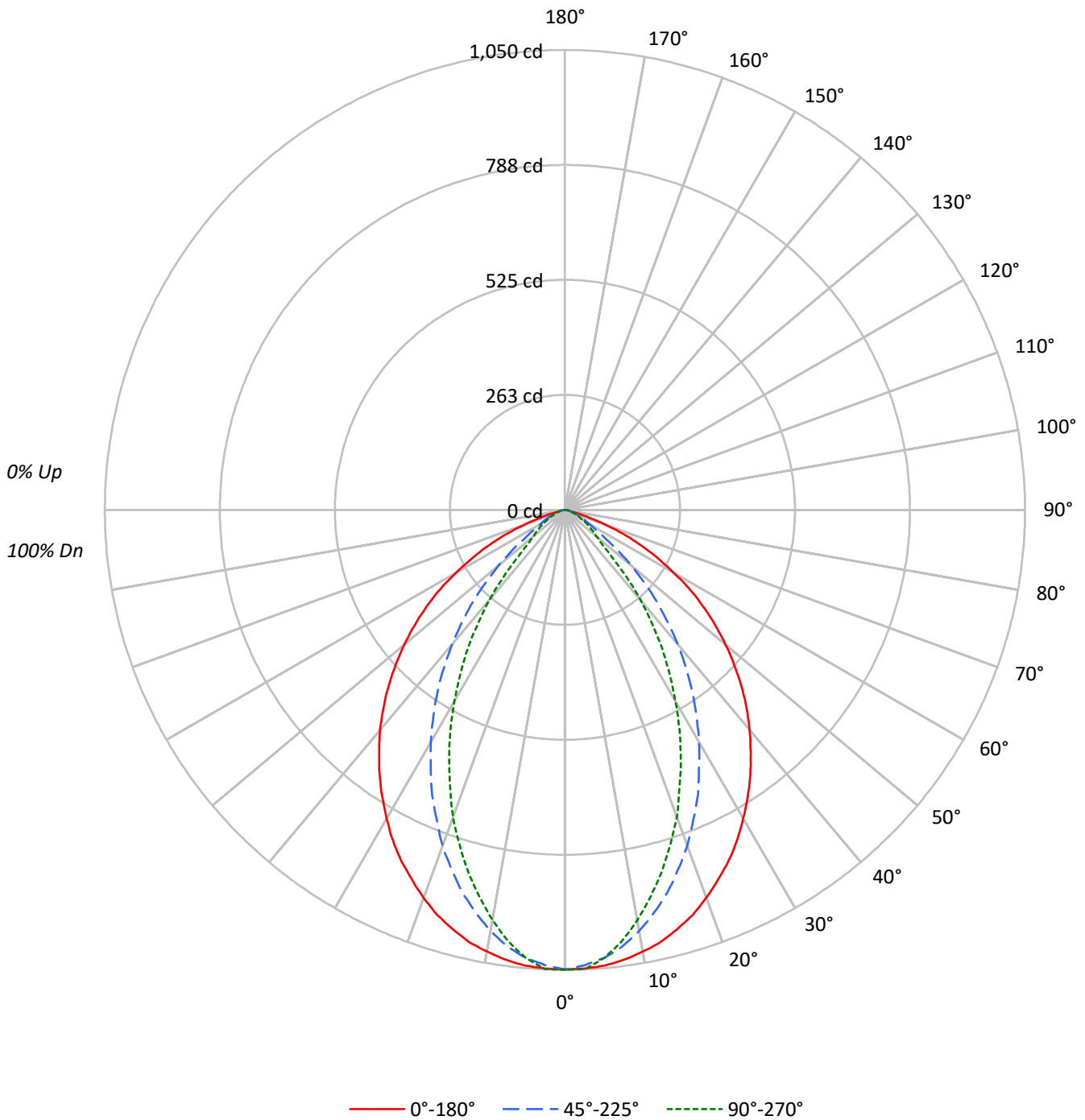
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1517.8 lumens  
Efficiency: N/A  
Efficacy: 48.6 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01  
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	
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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	7226	7226	7226
5°	7217	7097	7097
10°	7161	6825	6648
15°	7063	6445	6093
20°	6909	5980	5472
25°	6717	5451	4752
30°	6468	4866	4008
35°	6199	4260	3250
40°	5897	3596	2410
45°	5544	2883	1455
50°	5129	2114	1000
55°	4626	1296	832
60°	3930	881	661
65°	3107	673	521
70°	1961	483	429
75°	638	354	354
80°	210	266	317
85°	103	213	213

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5544 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.1	6.4
10°-20°	256.4	16.9
20°-30°	337.2	22.2
30°-40°	331.3	21.8
40°-50°	250.7	16.5
50°-60°	152.0	10.0
60°-70°	71.8	4.7
70°-80°	18.7	1.2
80°-90°	2.8	0.2
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°	690.6	45.5
0°-40°	1021.9	67.3
0°-60°	1424.6	93.9
0°-90°	1517.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1517.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1050	1050	1050	1050	1050	
5°	1044	1042	1027	1028	1027	99
15°	991	964	904	870	855	279
25°	884	818	718	651	626	406
35°	738	639	507	417	387	461
45°	569	448	296	188	149	438
55°	385	264	108	73	69	343
65°	191	97	41	35	32	188
75°	24	16	13	13	13	37
85°	1	1	3	3	3	2
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1049.5	1049.5	1049.5	1049.5	1049.5
2.5°	1048.2	1048.2	1040.2	1049.5	1049.5
5°	1044.2	1041.5	1026.9	1028.2	1026.9
7.5°	1036.2	1030.9	1005.5	998.9	993.5
10°	1024.2	1013.5	976.2	960.2	950.9
12.5°	1010.9	992.2	941.5	918.8	904.2
15°	990.9	964.2	904.2	869.5	854.8
17.5°	969.5	930.8	860.2	818.8	800.2
20°	942.9	897.5	816.2	765.5	746.8
22.5°	913.5	860.2	765.5	709.5	684.1
25°	884.2	817.5	717.5	650.8	625.5
27.5°	850.8	774.8	662.8	593.4	565.4
30°	813.5	732.1	612.1	540.1	504.1
32.5°	776.2	688.1	558.8	480.1	444.1
35°	737.5	638.8	506.8	417.4	386.7
37.5°	696.1	592.1	453.4	360.1	324.1
40°	656.1	545.4	400.1	301.4	268.1
42.5°	613.5	498.8	346.7	244.0	206.7
45°	569.4	448.1	296.1	188.0	149.4
47.5°	524.1	402.7	245.4	138.7	112.0
50°	478.8	354.7	197.4	102.7	93.4
52.5°	432.1	308.1	149.4	85.4	81.3
55°	385.4	264.1	108.0	73.3	69.3
57.5°	337.4	216.0	81.3	62.7	58.7
60°	285.4	173.4	64.0	52.0	48.0
62.5°	237.4	136.0	52.0	42.7	40.0
65°	190.7	97.4	41.3	34.7	32.0
67.5°	142.7	65.3	32.0	26.7	26.7
70°	97.4	42.7	24.0	21.3	21.3
72.5°	58.7	25.3	17.3	17.3	17.3
75°	24.0	16.0	13.3	13.3	13.3
77.5°	8.0	9.3	9.3	10.7	10.7
80°	5.3	5.3	6.7	8.0	8.0
82.5°	2.7	4.0	4.0	5.3	5.3
85°	1.3	1.3	2.7	2.7	2.7
87.5°	0.0	0.0	0.0	1.3	1.3
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	16.20	17.53	16.56	17.84	18.16	6.86	8.19	7.22	8.50	8.82
	3H	16.91	18.08	17.29	18.41	18.78	7.64	8.82	8.02	9.15	9.51
	4H	16.92	18.02	17.33	18.37	18.75	7.89	8.98	8.29	9.33	9.72
	6H	16.85	17.86	17.27	18.23	18.62	8.07	9.07	8.48	9.44	9.84
	8H	16.81	17.76	17.24	18.15	18.56	8.11	9.06	8.54	9.45	9.86
	12H	16.77	17.68	17.20	18.06	18.49	8.12	9.03	8.55	9.41	9.84
4H	2H	16.03	17.13	16.43	17.48	17.86	7.34	8.44	7.75	8.79	9.17
	3H	16.78	17.67	17.19	18.07	18.48	8.25	9.14	8.66	9.55	9.95
	4H	16.79	17.59	17.23	18.01	18.45	8.56	9.36	9.00	9.78	10.22
	6H	16.73	17.42	17.20	17.86	18.33	8.82	9.51	9.29	9.95	10.42
	8H	16.68	17.32	17.15	17.77	18.24	8.89	9.53	9.36	9.97	10.44
	12H	16.64	17.20	17.12	17.68	18.16	8.91	9.48	9.40	9.96	10.43
8H	4H	16.68	17.32	17.15	17.76	18.23	8.67	9.31	9.14	9.76	10.23
	6H	16.60	17.12	17.10	17.62	18.10	8.99	9.51	9.50	10.01	10.49
	8H	16.55	17.01	17.07	17.53	18.02	9.10	9.56	9.62	10.08	10.57
	12H	16.51	16.92	17.02	17.41	17.99	9.16	9.57	9.68	10.07	10.64
12H	4H	16.63	17.20	17.12	17.68	18.15	8.65	9.21	9.13	9.69	10.17
	6H	16.54	17.01	17.07	17.53	18.02	8.96	9.43	9.49	9.95	10.44
	8H	16.51	16.92	17.02	17.42	17.99	9.10	9.51	9.62	10.01	10.58