

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: P1061791

Luminaire Tested: S125RDRP-S850D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061791  
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: S125RDRP-S850D850-X4F0-XX-UDD-WVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

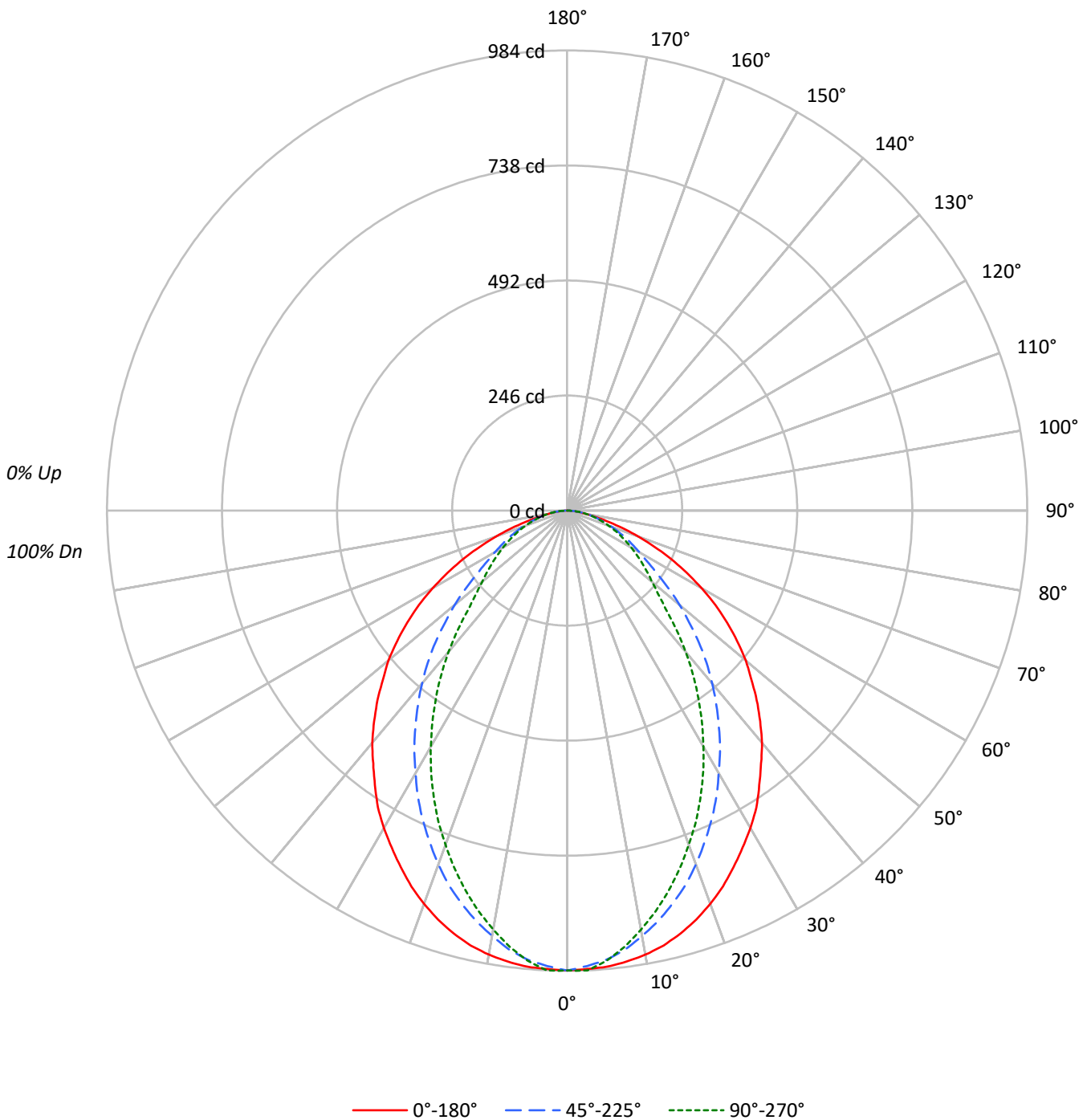
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1863.1 lumens  
Efficiency: N/A  
Efficacy: 72.2 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): 25.8  
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	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													87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75													75															
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65													65															
4	86	76	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57													57															
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50													50															
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45													45															
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40													40															
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36													36															
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33													33															
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30													30															

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

	0°	45°	90°
0°	6772	6772	6772
5°	6768	6665	6679
10°	6742	6458	6361
15°	6675	6204	5990
20°	6556	5899	5571
25°	6392	5549	5127
30°	6232	5153	4635
35°	6022	4757	4111
40°	5826	4339	3541
45°	5583	3878	2901
50°	5342	3362	2540
55°	5012	2808	2346
60°	4573	2455	2191
65°	4001	2245	2035
70°	3245	2021	1892
75°	2330	1846	1761
80°	1610	1649	1649
85°	1177	1438	1517

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5583 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.4	4.9
10°-20°	247.3	13.3
20°-30°	341.8	18.3
30°-40°	364.1	19.5
40°-50°	319.9	17.2
50°-60°	242.5	13.0
60°-70°	157.5	8.5
70°-80°	78.0	4.2
80°-90°	20.4	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°	680.6	36.5
0°-40°	1044.7	56.1
0°-60°	1607.1	86.3
0°-90°	1863.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1863.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	984	984	984	984	984	
5°	979	977	964	968	966	93
15°	936	915	870	850	840	264
25°	841	796	730	693	675	388
35°	716	650	566	515	489	449
45°	573	493	398	327	298	442
55°	418	335	234	202	195	372
65°	246	183	138	127	125	243
75°	88	77	69	67	66	98
85°	15	17	18	18	19	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	983.5	983.5	983.5	983.5	983.5
2.5°	981.3	983.5	974.9	982.4	984.5
5°	979.2	977.1	964.3	967.5	966.4
7.5°	972.8	968.5	947.2	945.0	940.8
10°	964.3	953.6	923.7	916.2	909.8
12.5°	952.5	935.4	899.1	884.2	876.7
15°	936.5	915.1	870.3	850.0	840.4
17.5°	917.3	887.4	840.4	812.6	801.9
20°	894.8	859.6	805.1	773.1	760.3
22.5°	870.3	828.6	767.8	733.6	719.7
25°	841.4	795.5	730.4	693.0	674.9
27.5°	812.6	761.4	690.9	649.2	630.0
30°	783.8	725.1	648.2	603.3	583.0
32.5°	752.8	687.7	608.7	559.5	536.1
35°	716.5	650.3	565.9	514.7	489.1
37.5°	681.3	610.8	524.3	466.6	442.1
40°	648.2	573.4	482.7	419.7	394.0
42.5°	610.8	533.9	441.0	374.8	346.0
45°	573.4	493.3	398.3	326.8	297.9
47.5°	533.9	454.9	353.5	283.0	263.8
50°	498.7	415.4	313.9	249.9	237.1
52.5°	458.1	376.9	273.4	224.2	215.7
55°	417.5	335.3	233.9	201.8	195.4
57.5°	375.9	297.9	202.9	182.6	176.2
60°	332.1	259.5	178.3	162.3	159.1
62.5°	288.3	220.0	157.0	145.2	141.0
65°	245.6	182.6	137.8	127.1	124.9
67.5°	201.8	148.4	118.5	111.1	110.0
70°	161.2	120.7	100.4	96.1	94.0
72.5°	123.9	96.1	84.4	81.2	80.1
75°	87.6	76.9	69.4	67.3	66.2
77.5°	58.7	58.7	55.5	53.4	54.5
80°	40.6	42.7	41.6	41.6	41.6
82.5°	26.7	28.8	29.9	29.9	29.9
85°	14.9	17.1	18.2	18.2	19.2
87.5°	5.3	6.4	7.5	8.5	8.5
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	17.20	18.69	17.56	19.00	19.32	13.44	14.93	13.81	15.25	15.56
	3H	18.51	19.85	18.89	20.17	20.54	15.02	16.36	15.40	16.69	17.05
	4H	18.88	20.13	19.28	20.48	20.86	15.63	16.88	16.03	17.23	17.61
	6H	19.05	20.21	19.47	20.58	20.97	16.10	17.25	16.51	17.62	18.01
	8H	19.09	20.19	19.52	20.58	20.98	16.26	17.36	16.68	17.75	18.15
	12H	19.10	20.16	19.53	20.54	20.97	16.37	17.42	16.80	17.80	18.23
4H	2H	17.31	18.56	17.71	18.91	19.29	14.10	15.35	14.50	15.70	16.08
	3H	18.80	19.84	19.21	20.24	20.64	15.88	16.92	16.29	17.32	17.72
	4H	19.27	20.21	19.71	20.62	21.06	16.60	17.54	17.04	17.95	18.39
	6H	19.56	20.37	20.02	20.81	21.27	17.19	18.00	17.65	18.44	18.91
	8H	19.63	20.39	20.09	20.83	21.30	17.40	18.15	17.86	18.60	19.07
	12H	19.67	20.34	20.15	20.82	21.29	17.55	18.23	18.03	18.70	19.18
8H	4H	19.36	20.11	19.82	20.56	21.03	16.91	17.67	17.38	18.11	18.58
	6H	19.72	20.34	20.22	20.84	21.31	17.62	18.24	18.12	18.74	19.21
	8H	19.84	20.40	20.35	20.91	21.40	17.90	18.46	18.41	18.97	19.46
	12H	19.92	20.42	20.43	20.91	21.48	18.13	18.62	18.64	19.12	19.68
12H	4H	19.35	20.03	19.83	20.50	20.98	16.94	17.61	17.42	18.09	18.57
	6H	19.72	20.28	20.24	20.79	21.28	17.67	18.23	18.18	18.74	19.23
	8H	19.88	20.38	20.39	20.87	21.44	18.01	18.50	18.52	18.99	19.56