

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: P1062169

Luminaire Tested: S125RDRP-H850D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1062169  
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-H850D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

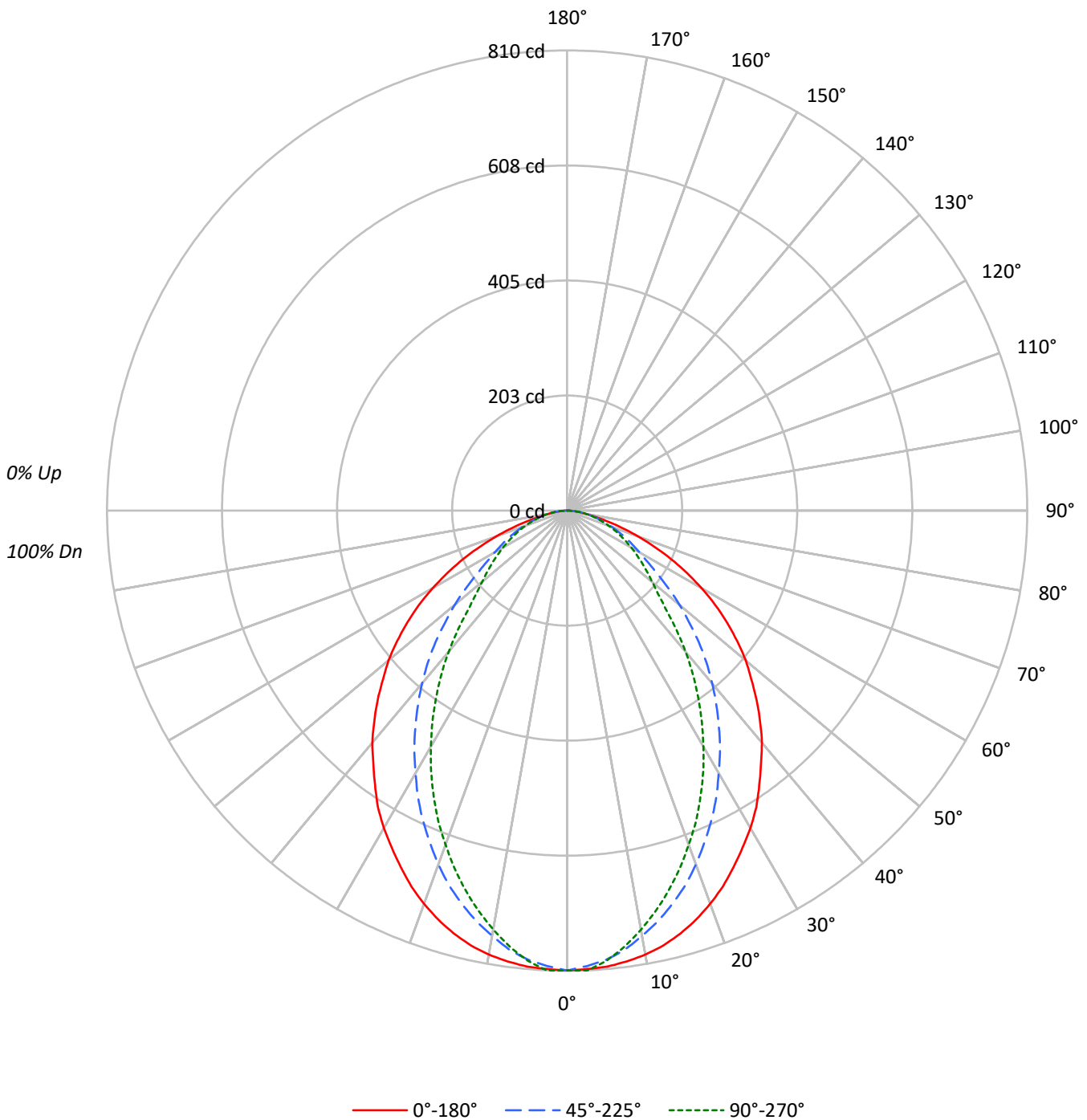
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1533.3 lumens  
Efficiency: N/A  
Efficacy: 65.2 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): 23.5  
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°	5573	5573	5573
5°	5570	5485	5497
10°	5548	5315	5235
15°	5494	5106	4931
20°	5396	4855	4585
25°	5261	4567	4219
30°	5129	4242	3815
35°	4957	3915	3383
40°	4795	3570	2915
45°	4595	3192	2388
50°	4396	2768	2090
55°	4125	2311	1930
60°	3763	2022	1803
65°	3293	1847	1675
70°	2671	1663	1556
75°	1918	1519	1450
80°	1324	1360	1360
85°	972	1177	1248

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4595 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.3	4.9
10°-20°	203.6	13.3
20°-30°	281.3	18.3
30°-40°	299.7	19.5
40°-50°	263.2	17.2
50°-60°	199.6	13.0
60°-70°	129.6	8.5
70°-80°	64.2	4.2
80°-90°	16.8	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°	560.2	36.5
0°-40°	859.8	56.1
0°-60°	1322.7	86.3
0°-90°	1533.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1533.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	809	809	809	809	809	
5°	806	804	794	796	795	77
15°	771	753	716	700	692	217
25°	692	655	601	570	555	319
35°	590	535	466	424	402	369
45°	472	406	328	269	245	364
55°	344	276	192	166	161	307
65°	202	150	113	105	103	200
75°	72	63	57	55	54	80
85°	12	14	15	15	16	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	809.4	809.4	809.4	809.4	809.4
2.5°	807.7	809.4	802.4	808.5	810.3
5°	805.9	804.1	793.6	796.2	795.4
7.5°	800.6	797.1	779.5	777.8	774.3
10°	793.6	784.8	760.2	754.0	748.8
12.5°	783.9	769.9	740.0	727.7	721.5
15°	770.7	753.2	716.3	699.6	691.7
17.5°	754.9	730.3	691.7	668.8	660.0
20°	736.5	707.5	662.6	636.3	625.7
22.5°	716.3	682.0	631.9	603.8	592.3
25°	692.5	654.7	601.1	570.4	555.4
27.5°	668.8	626.6	568.6	534.3	518.5
30°	645.1	596.7	533.5	496.5	479.8
32.5°	619.6	566.0	500.9	460.5	441.2
35°	589.7	535.2	465.8	423.6	402.5
37.5°	560.7	502.7	431.5	384.1	363.8
40°	533.5	471.9	397.2	345.4	324.3
42.5°	502.7	439.4	363.0	308.5	284.7
45°	471.9	406.0	327.8	268.9	245.2
47.5°	439.4	374.4	290.9	232.9	217.1
50°	410.4	341.9	258.4	205.6	195.1
52.5°	377.0	310.2	225.0	184.6	177.5
55°	343.6	276.0	192.5	166.1	160.8
57.5°	309.4	245.2	167.0	150.3	145.0
60°	273.3	213.6	146.8	133.6	130.9
62.5°	237.3	181.0	129.2	119.5	116.0
65°	202.1	150.3	113.4	104.6	102.8
67.5°	166.1	122.2	97.6	91.4	90.5
70°	132.7	99.3	82.6	79.1	77.3
72.5°	101.9	79.1	69.4	66.8	65.9
75°	72.1	63.3	57.1	55.4	54.5
77.5°	48.3	48.3	45.7	43.9	44.8
80°	33.4	35.2	34.3	34.3	34.3
82.5°	22.0	23.7	24.6	24.6	24.6
85°	12.3	14.1	14.9	14.9	15.8
87.5°	4.4	5.3	6.2	7.0	7.0
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	16.52	18.01	16.89	18.33	18.64	12.76	14.26	13.13	14.57	14.88
	3H	17.83	19.17	18.21	19.50	19.86	14.35	15.68	14.72	16.01	16.37
	4H	18.20	19.46	18.60	19.81	20.18	14.95	16.20	15.35	16.55	16.93
	6H	18.38	19.53	18.79	19.90	20.29	15.42	16.58	15.83	16.94	17.34
	8H	18.42	19.52	18.84	19.91	20.31	15.58	16.68	16.01	17.07	17.47
	12H	18.43	19.48	18.86	19.86	20.29	15.69	16.75	16.12	17.13	17.56
4H	2H	16.63	17.89	17.03	18.24	18.62	13.43	14.68	13.83	15.03	15.41
	3H	18.12	19.16	18.53	19.56	19.96	15.21	16.24	15.62	16.64	17.05
	4H	18.60	19.53	19.03	19.95	20.39	15.92	16.86	16.36	17.27	17.71
	6H	18.88	19.69	19.34	20.14	20.60	16.51	17.32	16.97	17.77	18.23
	8H	18.95	19.71	19.42	20.15	20.62	16.72	17.48	17.18	17.92	18.39
	12H	18.99	19.67	19.47	20.15	20.62	16.87	17.55	17.36	18.03	18.50
8H	4H	18.68	19.44	19.14	19.88	20.35	16.24	16.99	16.70	17.44	17.91
	6H	19.04	19.67	19.54	20.16	20.64	16.94	17.57	17.44	18.06	18.54
	8H	19.16	19.72	19.67	20.23	20.72	17.22	17.78	17.74	18.29	18.78
	12H	19.25	19.74	19.76	20.23	20.80	17.45	17.95	17.96	18.44	19.00
12H	4H	18.67	19.35	19.16	19.83	20.30	16.26	16.94	16.74	17.42	17.89
	6H	19.05	19.61	19.56	20.12	20.61	16.99	17.55	17.51	18.07	18.55
	8H	19.21	19.70	19.72	20.19	20.76	17.33	17.82	17.84	18.32	18.88