

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: P1061436

Luminaire Tested: S125RDRP-S1090D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061436  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1090D830-X4F0-XX-UDD-BVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

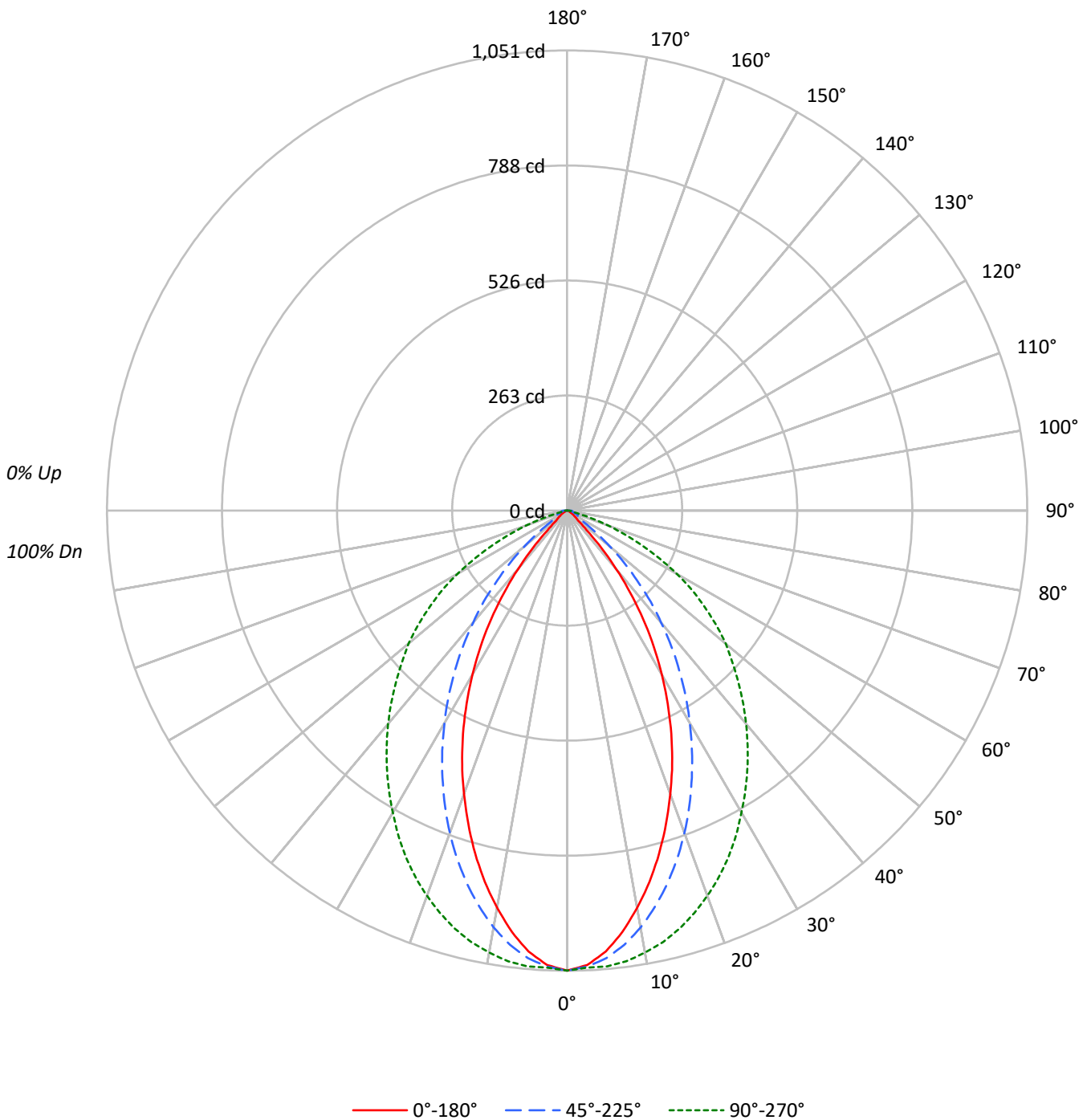
Lumens per Lamp: N/A  
Luminaire Lumens: 1359.4 lumens  
Efficiency: N/A  
Efficacy: 38.8 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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	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	98	98	96	95	95	93	92	90																												
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80																												
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72																												
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65																												
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59																												
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53																												
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49																												
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45																												
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41																												
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38																												

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

	0°	45°	90°
0°	7234	7234	7234
5°	6988	7093	7222
10°	6440	6759	7166
15°	5784	6291	7048
20°	5047	5740	6860
25°	4275	5117	6625
30°	3435	4455	6330
35°	2542	3758	6035
40°	1574	3001	5719
45°	613	2194	5377
50°	288	1375	5064
55°	210	588	4596
60°	145	419	3987
65°	94	438	3100
70°	95	399	1951
75°	125	404	620
80°	186	464	416
85°	276	924	648

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5377 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.4	7.1
10°-20°	249.7	18.4
20°-30°	318.0	23.4
30°-40°	296.0	21.8
40°-50°	203.7	15.0
50°-60°	115.3	8.5
60°-70°	54.5	4.0
70°-80°	17.0	1.3
80°-90°	8.9	0.7
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°	664.0	48.8
0°-40°	960.0	70.6
0°-60°	1279.0	94.1
0°-90°	1359.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1359.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1011	1025	1026	1036	1045	94
15°	811	838	883	949	989	226
25°	563	599	674	787	872	257
35°	302	344	447	600	718	187
45°	63	100	225	407	552	59
55°	18	20	49	235	383	16
65°	6	7	27	84	190	6
75°	5	10	15	16	23	5
85°	4	9	12	10	8	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1039.0	1049.5	1042.5	1043.7	1044.9
5°	1011.0	1025.0	1026.2	1035.5	1044.9
7.5°	970.2	987.7	1000.5	1022.7	1037.9
10°	921.1	942.1	966.7	1002.8	1025.0
12.5°	868.6	893.1	927.0	978.3	1009.9
15°	811.4	838.2	882.6	949.1	988.8
17.5°	750.7	781.0	834.7	914.1	964.3
20°	688.8	721.5	783.4	874.4	936.3
22.5°	626.9	660.8	729.7	831.2	905.9
25°	562.7	598.9	673.6	786.9	872.1
27.5°	497.3	534.7	617.6	741.3	835.9
30°	432.0	471.7	560.4	694.6	796.2
32.5°	367.7	407.4	504.3	647.9	757.7
35°	302.4	344.4	447.1	600.1	718.0
37.5°	237.0	282.5	391.1	551.0	677.1
40°	175.1	218.3	333.9	503.2	636.3
42.5°	116.7	158.8	282.5	455.3	594.2
45°	63.0	100.4	225.3	407.4	552.2
47.5°	33.9	53.7	176.3	360.7	511.3
50°	26.9	30.4	128.4	317.5	472.8
52.5°	22.2	24.5	84.1	276.7	428.5
55°	17.5	19.8	49.0	234.7	382.9
57.5°	14.0	16.3	31.5	195.0	338.6
60°	10.5	12.8	30.4	156.4	289.5
62.5°	8.2	9.3	28.0	120.2	238.2
65°	5.8	7.0	26.9	84.1	190.3
67.5°	4.7	5.8	24.5	53.7	142.4
70°	4.7	4.7	19.8	35.0	96.9
72.5°	4.7	8.2	17.5	23.3	58.4
75°	4.7	10.5	15.2	16.3	23.3
77.5°	4.7	11.7	12.8	12.8	12.8
80°	4.7	10.5	11.7	11.7	10.5
82.5°	4.7	9.3	10.5	11.7	9.3
85°	3.5	9.3	11.7	10.5	8.2
87.5°	3.5	9.3	10.5	9.3	5.8
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	0.00	0.00	0.00	0.00	0.00	16.12	17.41	16.49	17.72	18.04
	3H	0.00	0.00	0.00	0.00	0.12	16.84	17.98	17.22	18.31	18.68
	4H	0.00	0.25	0.00	0.60	0.99	16.86	17.93	17.27	18.28	18.66
	6H	0.46	1.44	0.88	1.81	2.20	16.81	17.79	17.23	18.16	18.56
	8H	1.11	2.03	1.54	2.42	2.83	16.79	17.71	17.22	18.11	18.51
	12H	1.70	2.58	2.13	2.96	3.39	16.77	17.66	17.21	18.04	18.47
4H	2H	0.63	1.69	1.03	2.04	2.43	15.91	16.98	16.32	17.33	17.71
	3H	1.44	2.31	1.86	2.72	3.12	16.67	17.54	17.08	17.94	18.34
	4H	2.45	3.23	2.89	3.65	4.09	16.70	17.47	17.13	17.89	18.34
	6H	3.74	4.40	4.20	4.85	5.32	16.68	17.34	17.14	17.79	18.26
	8H	4.32	4.94	4.79	5.39	5.86	16.66	17.28	17.13	17.73	18.20
	12H	4.88	5.43	5.36	5.91	6.39	16.67	17.22	17.15	17.70	18.17
8H	4H	3.87	4.49	4.34	4.94	5.41	16.58	17.20	17.05	17.65	18.12
	6H	5.43	5.94	5.93	6.44	6.92	16.57	17.08	17.07	17.57	18.06
	8H	6.22	6.68	6.74	7.19	7.69	16.58	17.04	17.10	17.55	18.05
	12H	7.06	7.46	7.57	7.95	8.53	16.64	17.05	17.16	17.54	18.11
12H	4H	4.09	4.64	4.57	5.12	5.60	16.54	17.09	17.02	17.57	18.05
	6H	5.80	6.26	6.32	6.77	7.27	16.52	16.98	17.05	17.50	17.99
	8H	6.79	7.19	7.30	7.69	8.26	16.57	16.97	17.09	17.47	18.04