

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: P1061441

Luminaire Tested: S125RDRP-S1090D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061441  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-85)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1090D830-X4F0-XX-UDD-WVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

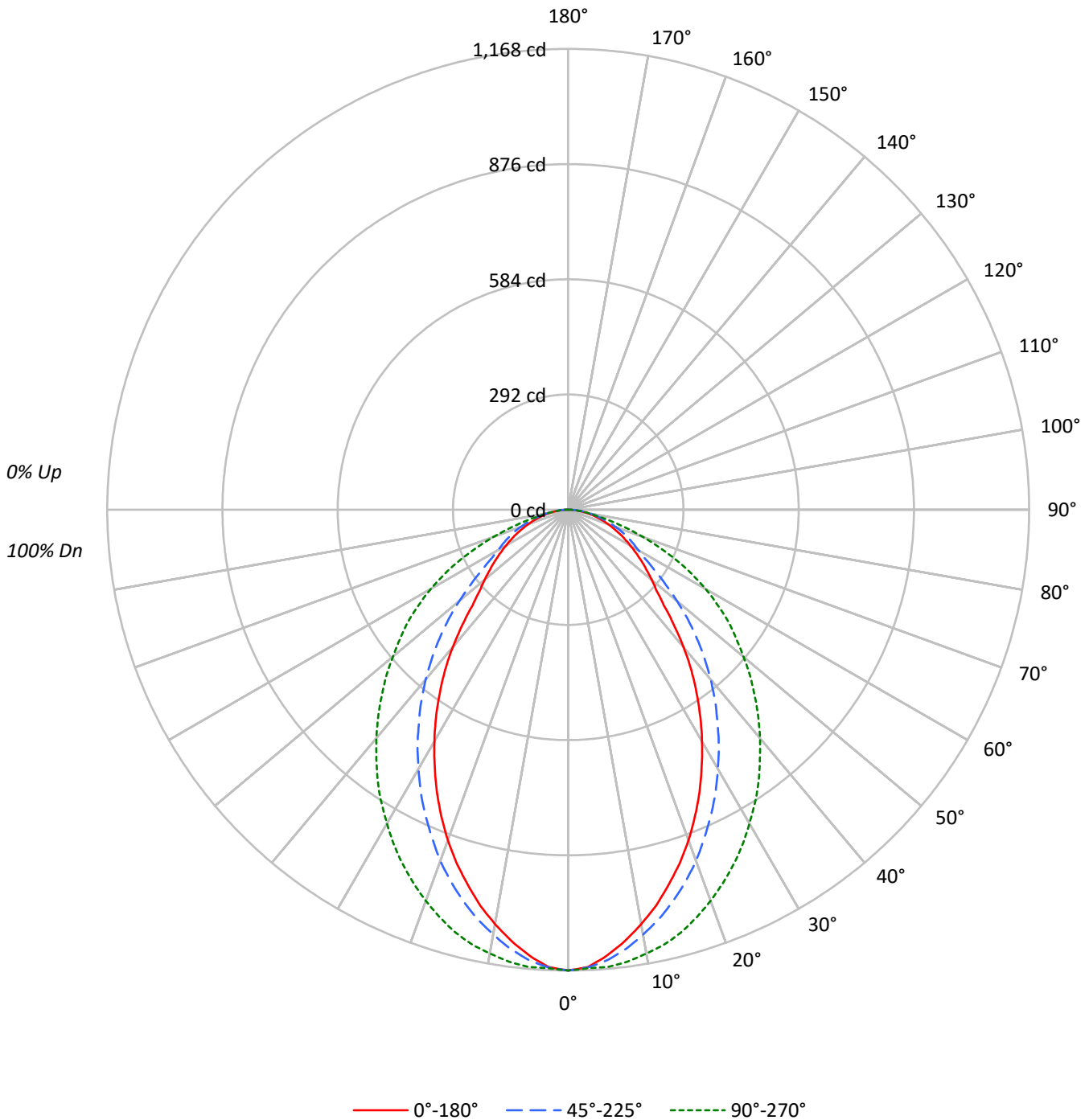
Lumens per Lamp: N/A  
Luminaire Lumens: 2189.6 lumens  
Efficiency: N/A  
Efficacy: 62.6 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct

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

TEST NUMBER: P1061441

CATALOG NUMBER: S125RDRP-S1090D830-X4F0-XX-UDD-WVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1061441

CATALOG NUMBER: S125RDRP-S1090D830-X4F0-XX-UDD-WVL-S

**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	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	107	104	100	97	99	97	94	96	93	91	92	90	88					86				
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76					74				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66					64				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	51	46					44				
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42					40				
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38					36				
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35					33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32					30				

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

	0°	45°	90°
0°	8042	8042	8042
5°	7838	7919	8040
10°	7456	7644	7986
15°	7011	7319	7902
20°	6531	6942	7729
25°	5983	6498	7535
30°	5390	6030	7301
35°	4767	5542	7071
40°	4090	5044	6796
45°	3340	4488	6510
50°	2962	3850	6212
55°	2718	3193	5953
60°	2506	2828	5544
65°	2338	2719	4943
70°	2184	2583	4040
75°	2016	2421	2979
80°	1895	2268	2173
85°	1754	2212	1841

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6510 cd/sqm



TEST NUMBER: P1061441

CATALOG NUMBER: S125RDRP-S1090D830-X4F0-XX-UDD-WVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.1	4.9
10°-20°	291.2	13.3
20°-30°	400.1	18.3
30°-40°	424.1	19.4
40°-50°	370.2	16.9
50°-60°	281.2	12.8
60°-70°	188.4	8.6
70°-80°	97.1	4.4
80°-90°	29.1	1.3
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°	799.4	36.5
0°-40°	1223.5	55.9
0°-60°	1874.9	85.6
0°-90°	2189.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2189.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1134	1146	1146	1154	1163	106
15°	984	1002	1027	1072	1108	276
25°	788	812	855	926	992	361
35°	567	600	659	753	841	354
45°	343	377	461	571	669	271
55°	226	233	266	391	496	203
65°	144	147	167	223	303	142
75°	76	80	91	97	112	81
85°	22	28	28	26	23	25
90°	0	0	0	0	0	



TEST NUMBER: P1061441

CATALOG NUMBER: S125RDRP-S1090D830-X4F0-XX-UDD-WVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1168.0	1168.0	1168.0	1168.0	1168.0
2.5°	1159.8	1168.0	1161.0	1161.0	1163.3
5°	1134.1	1145.8	1145.8	1154.0	1163.3
7.5°	1102.6	1115.5	1122.5	1141.1	1155.1
10°	1066.5	1080.5	1093.3	1121.3	1142.3
12.5°	1028.0	1043.1	1063.0	1099.1	1128.3
15°	983.6	1002.3	1026.8	1072.3	1108.5
17.5°	939.3	958.0	988.3	1042.0	1082.8
20°	891.4	911.3	947.5	1005.8	1054.8
22.5°	840.1	862.3	900.8	967.3	1024.5
25°	787.6	812.1	855.3	926.5	991.8
27.5°	732.8	761.9	808.6	884.4	956.8
30°	677.9	707.1	758.4	841.3	918.3
32.5°	623.1	654.6	710.6	798.1	880.9
35°	567.1	599.7	659.3	752.6	841.3
37.5°	512.2	544.9	611.4	708.3	798.1
40°	455.1	488.9	561.2	662.8	756.1
42.5°	396.7	432.9	511.1	616.1	712.9
45°	343.0	376.9	460.9	570.6	668.6
47.5°	303.4	325.5	410.7	523.9	625.4
50°	276.5	288.2	359.4	478.4	579.9
52.5°	249.7	259.0	311.5	431.7	536.7
55°	226.4	233.4	266.0	390.9	495.9
57.5°	203.0	210.0	231.0	350.0	448.1
60°	182.0	187.9	205.4	306.9	402.6
62.5°	162.2	166.9	185.5	266.0	353.5
65°	143.5	147.0	166.9	222.9	303.4
67.5°	124.8	128.3	148.2	182.0	249.7
70°	108.5	109.7	128.3	148.2	200.7
72.5°	92.2	93.3	108.5	120.2	154.0
75°	75.8	80.5	91.0	96.8	112.0
77.5°	61.8	67.7	73.5	75.8	75.8
80°	47.8	54.8	57.2	57.2	54.8
82.5°	35.0	40.8	42.0	39.7	37.3
85°	22.2	28.0	28.0	25.7	23.3
87.5°	10.5	15.2	15.2	14.0	10.5
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1061441  
 CATALOG NUMBER: S125RDRP-S1090D830-X4F0-XX-UDD-WVL-S

**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	13.85	15.35	14.21	15.66	15.97	17.78	19.27	18.14	19.59	19.90
	3H	15.42	16.76	15.80	17.09	17.45	19.20	20.54	19.58	20.87	21.23
	4H	16.03	17.29	16.43	17.64	18.02	19.61	20.87	20.01	21.22	21.60
	6H	16.53	17.69	16.94	18.06	18.45	19.83	20.99	20.24	21.36	21.75
	8H	16.70	17.81	17.13	18.20	18.60	19.89	21.00	20.32	21.38	21.79
	12H	16.82	17.88	17.26	18.27	18.70	19.92	20.98	20.35	21.36	21.79
4H	2H	14.59	15.85	14.99	16.19	16.57	17.90	19.16	18.30	19.51	19.89
	3H	16.36	17.41	16.78	17.81	18.21	19.51	20.56	19.92	20.96	21.36
	4H	17.10	18.04	17.53	18.46	18.90	20.04	20.98	20.47	21.40	21.84
	6H	17.74	18.55	18.19	19.00	19.46	20.38	21.20	20.84	21.64	22.10
	8H	17.96	18.73	18.43	19.17	19.64	20.48	21.25	20.94	21.69	22.16
	12H	18.14	18.82	18.62	19.30	19.77	20.55	21.24	21.04	21.72	22.19
8H	4H	17.50	18.27	17.96	18.71	19.18	20.15	20.91	20.61	21.36	21.82
	6H	18.29	18.92	18.78	19.41	19.89	20.59	21.22	21.08	21.71	22.19
	8H	18.61	19.18	19.13	19.69	20.18	20.74	21.31	21.26	21.82	22.31
	12H	18.89	19.39	19.40	19.88	20.44	20.88	21.38	21.39	21.87	22.44
12H	4H	17.54	18.23	18.03	18.71	19.18	20.15	20.83	20.63	21.31	21.78
	6H	18.37	18.94	18.88	19.45	19.94	20.60	21.17	21.12	21.68	22.17
	8H	18.77	19.27	19.28	19.76	20.32	20.81	21.31	21.32	21.80	22.37