

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: P1061854

Luminaire Tested: S125RDRP-H1090D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061854  
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-H1090D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

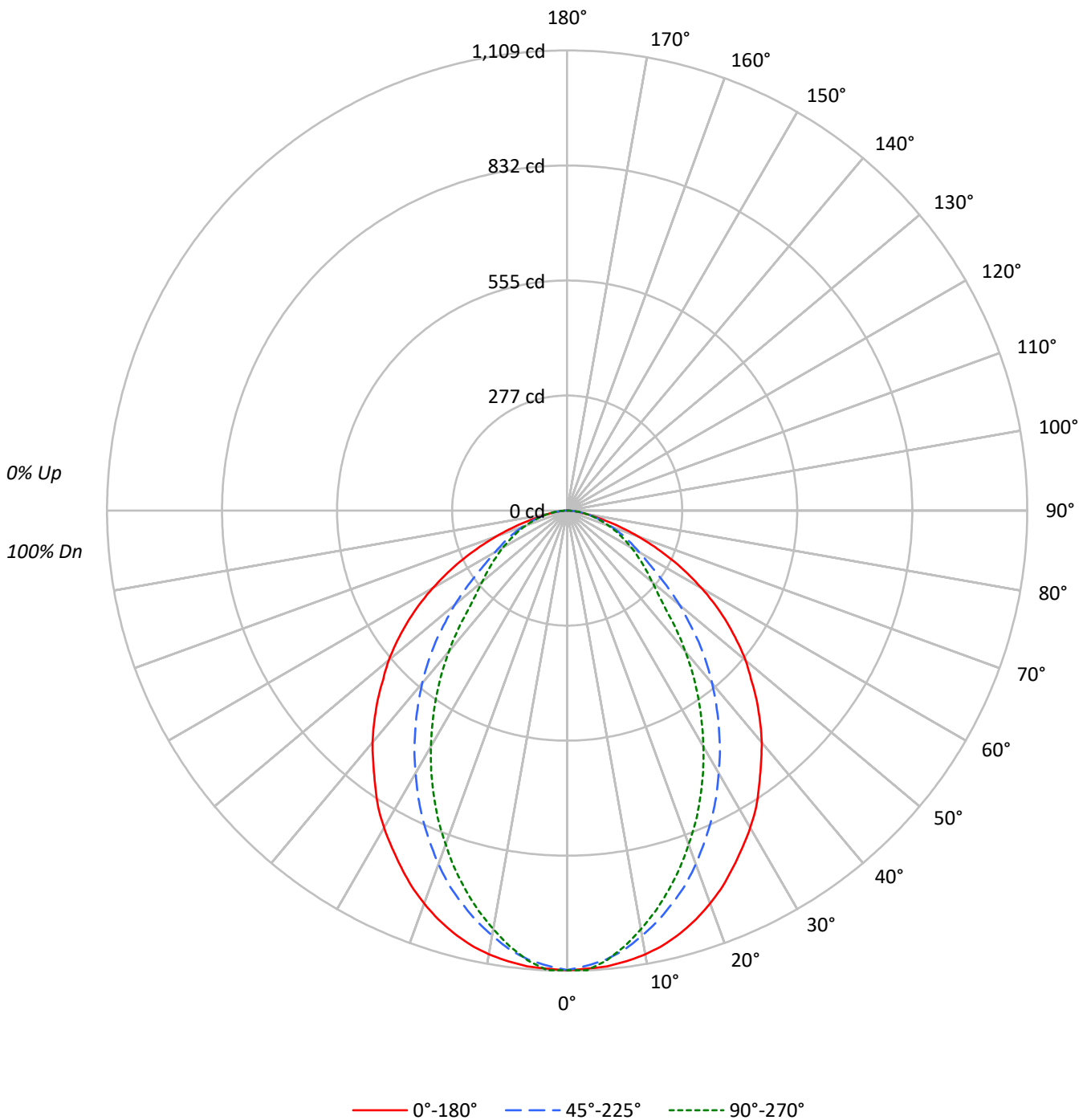
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2098.0 lumens  
Efficiency: N/A  
Efficacy: 67.2 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): 31.2  
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	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				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77					75				
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67					65				
4	86	76	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59					57				
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52					50				
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47					45				
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42					40				
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38					36				
9	61	48	41	35	60	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°	7625	7625	7625
5°	7621	7505	7521
10°	7591	7272	7163
15°	7517	6986	6746
20°	7384	6643	6273
25°	7199	6249	5774
30°	7017	5803	5220
35°	6782	5357	4629
40°	6560	4885	3988
45°	6287	4367	3267
50°	6016	3787	2860
55°	5644	3161	2642
60°	5150	2765	2468
65°	4506	2527	2292
70°	3656	2275	2130
75°	2623	2080	1985
80°	1812	1860	1860
85°	1327	1612	1706

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6287 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.0	4.9
10°-20°	278.5	13.3
20°-30°	385.0	18.3
30°-40°	410.0	19.5
40°-50°	360.2	17.2
50°-60°	273.1	13.0
60°-70°	177.3	8.5
70°-80°	87.9	4.2
80°-90°	23.0	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°	766.4	36.5
0°-40°	1176.5	56.1
0°-60°	1809.8	86.3
0°-90°	2098.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2098.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1108	1108	1108	1108	1108	
5°	1103	1100	1086	1090	1088	105
15°	1055	1030	980	957	946	297
25°	948	896	822	780	760	437
35°	807	732	637	580	551	505
45°	646	556	448	368	336	498
55°	470	378	263	227	220	419
65°	277	206	155	143	141	273
75°	99	87	78	76	75	110
85°	17	19	20	20	22	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1107.5	1107.5	1107.5	1107.5	1107.5
2.5°	1105.1	1107.5	1097.9	1106.3	1108.7
5°	1102.7	1100.3	1085.8	1089.5	1088.2
7.5°	1095.5	1090.7	1066.6	1064.2	1059.4
10°	1085.8	1073.8	1040.1	1031.7	1024.5
12.5°	1072.6	1053.4	1012.5	995.7	987.2
15°	1054.6	1030.5	980.0	957.2	946.4
17.5°	1032.9	999.3	946.4	915.1	903.1
20°	1007.7	968.0	906.7	870.6	856.2
22.5°	980.0	933.1	864.6	826.1	810.5
25°	947.6	895.9	822.5	780.4	760.0
27.5°	915.1	857.4	778.0	731.1	709.5
30°	882.6	816.5	729.9	679.4	656.6
32.5°	847.8	774.4	685.4	630.1	603.6
35°	806.9	732.3	637.3	579.6	550.7
37.5°	767.2	687.8	590.4	525.5	497.8
40°	729.9	645.7	543.5	472.6	443.7
42.5°	687.8	601.2	496.6	422.1	389.6
45°	645.7	555.5	448.5	368.0	335.5
47.5°	601.2	512.3	398.0	318.7	297.0
50°	561.6	467.8	353.5	281.4	267.0
52.5°	515.9	424.5	307.8	252.5	242.9
55°	470.2	377.6	263.3	227.3	220.1
57.5°	423.3	335.5	228.5	205.6	198.4
60°	374.0	292.2	200.8	182.8	179.2
62.5°	324.7	247.7	176.8	163.5	158.7
65°	276.6	205.6	155.1	143.1	140.7
67.5°	227.3	167.1	133.5	125.1	123.9
70°	181.6	135.9	113.0	108.2	105.8
72.5°	139.5	108.2	95.0	91.4	90.2
75°	98.6	86.6	78.2	75.8	74.6
77.5°	66.1	66.1	62.5	60.1	61.3
80°	45.7	48.1	46.9	46.9	46.9
82.5°	30.1	32.5	33.7	33.7	33.7
85°	16.8	19.2	20.4	20.4	21.6
87.5°	6.0	7.2	8.4	9.6	9.6
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	17.61	19.10	17.98	19.42	19.73	13.85	15.34	14.22	15.66	15.97
	3H	18.92	20.26	19.30	20.59	20.95	15.44	16.77	15.81	17.10	17.46
	4H	19.29	20.55	19.69	20.89	21.27	16.04	17.29	16.44	17.64	18.02
	6H	19.47	20.62	19.88	20.99	21.38	16.51	17.67	16.92	18.03	18.43
	8H	19.50	20.60	19.93	20.99	21.40	16.67	17.77	17.10	18.16	18.56
	12H	19.52	20.57	19.95	20.95	21.38	16.78	17.84	17.21	18.22	18.65
4H	2H	17.72	18.98	18.12	19.33	19.70	14.51	15.77	14.91	16.12	16.49
	3H	19.21	20.25	19.62	20.65	21.05	16.30	17.33	16.71	17.73	18.14
	4H	19.69	20.62	20.12	21.04	21.47	17.01	17.95	17.45	18.36	18.80
	6H	19.97	20.78	20.43	21.23	21.69	17.60	18.41	18.06	18.86	19.32
	8H	20.04	20.80	20.50	21.24	21.71	17.81	18.57	18.27	19.01	19.48
	12H	20.08	20.76	20.56	21.24	21.71	17.96	18.64	18.45	19.12	19.59
8H	4H	19.77	20.53	20.23	20.97	21.44	17.33	18.08	17.79	18.53	18.99
	6H	20.13	20.76	20.63	21.25	21.73	18.03	18.66	18.53	19.15	19.63
	8H	20.25	20.81	20.76	21.32	21.81	18.31	18.87	18.83	19.38	19.87
	12H	20.34	20.83	20.85	21.32	21.89	18.54	19.04	19.05	19.53	20.09
12H	4H	19.76	20.44	20.25	20.92	21.39	17.35	18.03	17.83	18.51	18.98
	6H	20.14	20.70	20.65	21.21	21.70	18.08	18.64	18.60	19.15	19.64
	8H	20.30	20.79	20.81	21.28	21.85	18.42	18.91	18.93	19.41	19.97