

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: P1061859

Luminaire Tested: S125RDRP-H1090D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061859  
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-H1090D840-X4F0-XX-UDD-BVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

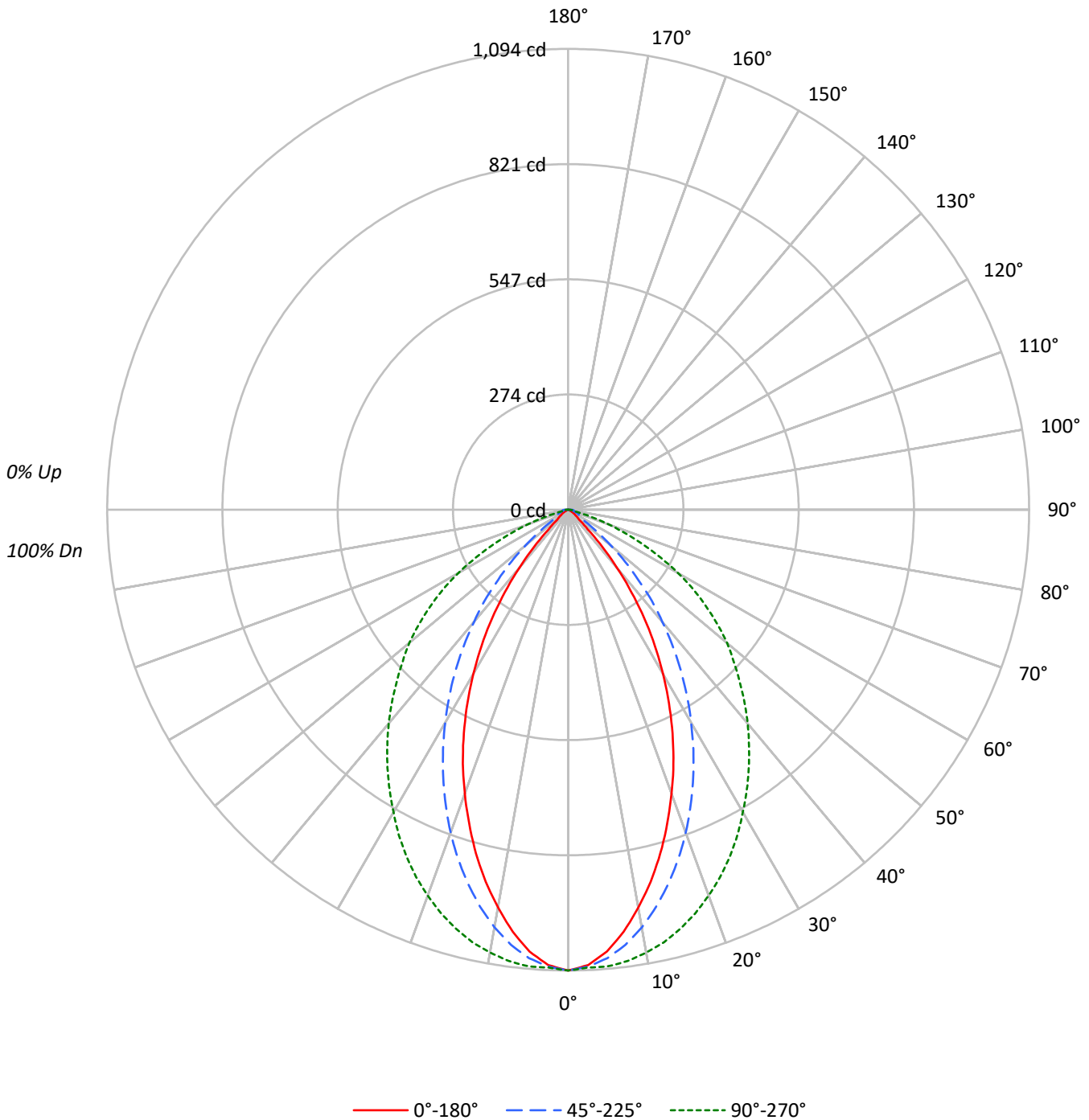
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1415.4 lumens  
Efficiency: N/A  
Efficacy: 45.4 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): 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	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10																
RCR	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100																	
	1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90																	
	2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80																
	3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72																
	4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65																
	5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59																
	6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53																
	7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49																
	8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45																
	9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41																
	10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38																

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

	0°	45°	90°
0°	7532	7532	7532
5°	7276	7385	7520
10°	6706	7037	7462
15°	6022	6551	7339
20°	5255	5977	7143
25°	4451	5329	6898
30°	3576	4639	6591
35°	2646	3914	6284
40°	1639	3125	5955
45°	639	2284	5599
50°	300	1432	5273
55°	218	613	4786
60°	150	435	4152
65°	99	456	3227
70°	99	417	2031
75°	130	420	646
80°	194	484	432
85°	284	964	671

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5599 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.3	7.1
10°-20°	259.9	18.4
20°-30°	331.1	23.4
30°-40°	308.2	21.8
40°-50°	212.1	15.0
50°-60°	120.1	8.5
60°-70°	56.7	4.0
70°-80°	17.7	1.3
80°-90°	9.2	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°	691.4	48.8
0°-40°	999.5	70.6
0°-60°	1331.7	94.1
0°-90°	1415.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1415.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1094	1094	1094	1094	1094	
5°	1053	1067	1068	1078	1088	97
15°	845	873	919	988	1030	235
25°	586	624	701	819	908	267
35°	315	359	466	625	748	195
45°	66	104	235	424	575	62
55°	18	21	51	244	399	17
65°	6	7	28	88	198	7
75°	5	11	16	17	24	5
85°	4	10	12	11	8	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1094.0	1094.0	1094.0	1094.0	1094.0
2.5°	1081.9	1092.8	1085.5	1086.7	1088.0
5°	1052.7	1067.3	1068.5	1078.2	1088.0
7.5°	1010.2	1028.4	1041.8	1064.9	1080.7
10°	959.1	981.0	1006.5	1044.2	1067.3
12.5°	904.4	929.9	965.2	1018.7	1051.5
15°	844.8	872.8	919.0	988.3	1029.6
17.5°	781.6	813.2	869.1	951.8	1004.1
20°	717.2	751.2	815.7	910.5	974.9
22.5°	652.8	688.0	759.7	865.5	943.3
25°	585.9	623.6	701.4	819.3	908.0
27.5°	517.8	556.7	643.0	771.9	870.4
30°	449.8	491.1	583.5	723.3	829.0
32.5°	382.9	424.2	525.1	674.7	788.9
35°	314.8	358.6	465.6	624.8	747.6
37.5°	246.8	294.2	407.2	573.8	705.0
40°	182.3	227.3	347.7	523.9	662.5
42.5°	121.6	165.3	294.2	474.1	618.7
45°	65.6	104.5	234.6	424.2	575.0
47.5°	35.3	55.9	183.6	375.6	532.4
50°	28.0	31.6	133.7	330.6	492.3
52.5°	23.1	25.5	87.5	288.1	446.1
55°	18.2	20.7	51.1	244.3	398.7
57.5°	14.6	17.0	32.8	203.0	352.5
60°	10.9	13.4	31.6	162.9	301.5
62.5°	8.5	9.7	29.2	125.2	248.0
65°	6.1	7.3	28.0	87.5	198.1
67.5°	4.9	6.1	25.5	55.9	148.3
70°	4.9	4.9	20.7	36.5	100.9
72.5°	4.9	8.5	18.2	24.3	60.8
75°	4.9	10.9	15.8	17.0	24.3
77.5°	4.9	12.2	13.4	13.4	13.4
80°	4.9	10.9	12.2	12.2	10.9
82.5°	4.9	9.7	10.9	12.2	9.7
85°	3.6	9.7	12.2	10.9	8.5
87.5°	3.6	9.7	10.9	9.7	6.1
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	16.26	17.55	16.63	17.86	18.18
	3H	0.00	0.00	0.00	0.00	0.28	16.98	18.12	17.36	18.45	18.82
	4H	0.00	0.40	0.00	0.75	1.14	17.00	18.07	17.41	18.42	18.80
	6H	0.61	1.59	1.03	1.96	2.35	16.95	17.93	17.37	18.30	18.70
	8H	1.26	2.18	1.69	2.57	2.98	16.93	17.85	17.36	18.25	18.65
	12H	1.84	2.72	2.27	3.10	3.53	16.91	17.80	17.35	18.18	18.61
4H	2H	0.77	1.84	1.18	2.19	2.57	16.05	17.11	16.45	17.47	17.85
	3H	1.59	2.46	2.00	2.86	3.27	16.81	17.68	17.22	18.08	18.48
	4H	2.59	3.37	3.03	3.79	4.23	16.84	17.61	17.27	18.03	18.48
	6H	3.88	4.54	4.34	4.99	5.46	16.82	17.48	17.28	17.93	18.40
	8H	4.46	5.08	4.93	5.53	6.00	16.80	17.42	17.27	17.87	18.34
	12H	5.02	5.57	5.50	6.05	6.52	16.81	17.36	17.29	17.84	18.32
8H	4H	4.01	4.63	4.48	5.08	5.55	16.72	17.34	17.19	17.79	18.26
	6H	5.57	6.08	6.07	6.58	7.06	16.71	17.22	17.21	17.72	18.20
	8H	6.36	6.82	6.89	7.34	7.83	16.72	17.18	17.25	17.69	18.19
	12H	7.20	7.60	7.71	8.10	8.67	16.78	17.19	17.30	17.68	18.25
12H	4H	4.23	4.78	4.72	5.27	5.74	16.68	17.23	17.16	17.71	18.19
	6H	5.94	6.40	6.47	6.92	7.41	16.66	17.12	17.19	17.64	18.13
	8H	6.93	7.33	7.45	7.83	8.40	16.71	17.11	17.23	17.61	18.18