

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: P1061908

Luminaire Tested: S125RDRP-H1090D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061908  
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-H1090D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

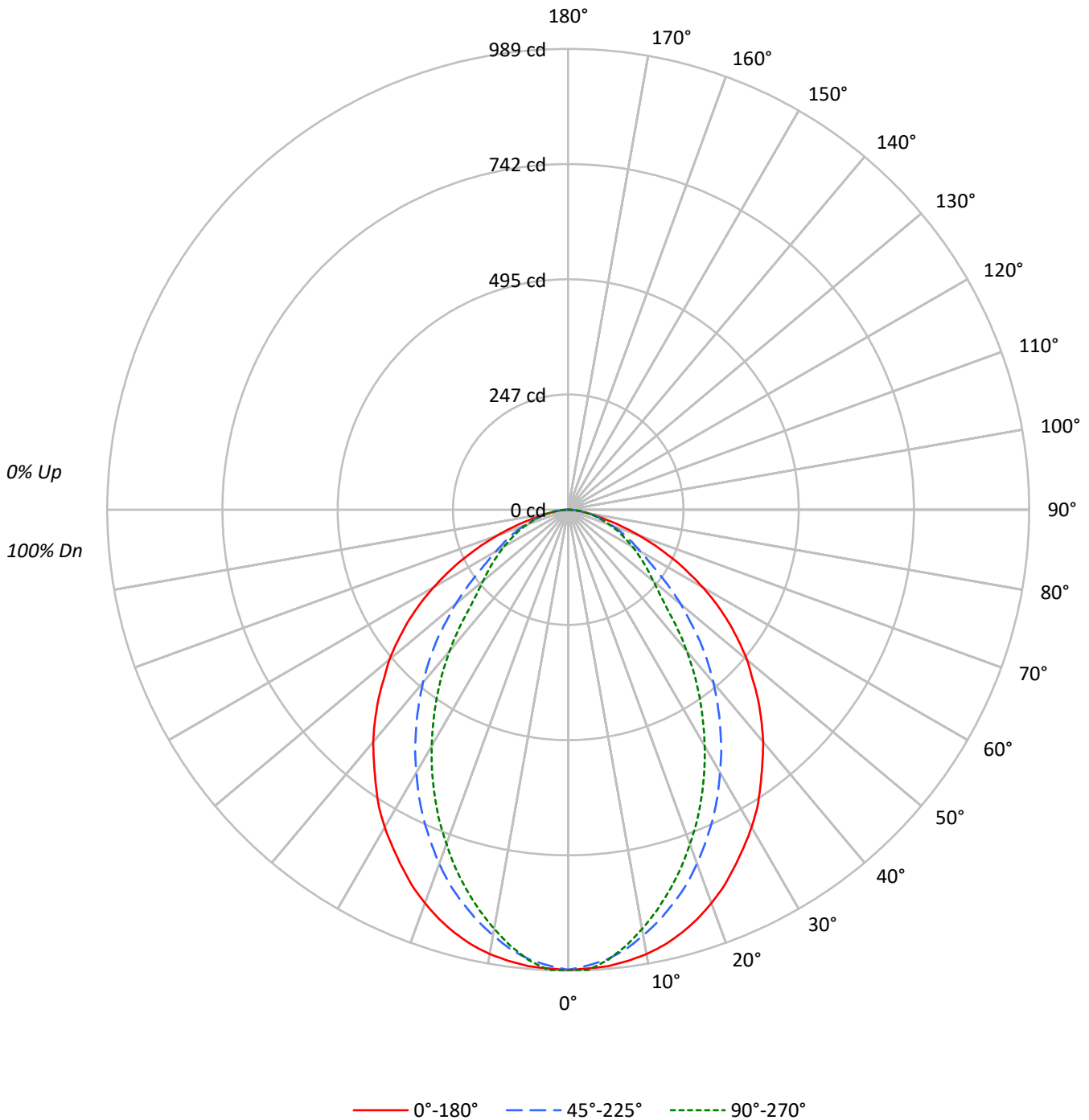
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1870.8 lumens  
Efficiency: N/A  
Efficacy: 60.0 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					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°	6800	6800	6800
5°	6796	6692	6707
10°	6770	6485	6387
15°	6703	6229	6015
20°	6584	5924	5594
25°	6419	5572	5149
30°	6257	5175	4655
35°	6048	4777	4128
40°	5850	4357	3557
45°	5607	3895	2913
50°	5363	3376	2549
55°	5033	2819	2355
60°	4592	2466	2201
65°	4018	2253	2045
70°	3259	2029	1900
75°	2338	1854	1769
80°	1614	1657	1657
85°	1185	1438	1525

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5607 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.8	4.9
10°-20°	248.4	13.3
20°-30°	343.3	18.3
30°-40°	365.6	19.5
40°-50°	321.2	17.2
50°-60°	243.6	13.0
60°-70°	158.1	8.5
70°-80°	78.4	4.2
80°-90°	20.5	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°	683.4	36.5
0°-40°	1049.1	56.1
0°-60°	1613.8	86.3
0°-90°	1870.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1870.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	988	988	988	988	988	
5°	983	981	968	972	970	93
15°	940	919	874	854	844	265
25°	845	799	733	696	678	389
35°	720	653	568	517	491	450
45°	576	495	400	328	299	444
55°	419	337	235	203	196	374
65°	247	183	138	128	126	244
75°	88	77	70	68	66	98
85°	15	17	18	18	19	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	987.6	987.6	987.6	987.6	987.6
2.5°	985.4	987.6	979.0	986.5	988.6
5°	983.3	981.1	968.3	971.5	970.4
7.5°	976.8	972.5	951.1	949.0	944.7
10°	968.3	957.5	927.5	920.0	913.6
12.5°	956.5	939.3	902.8	887.8	880.3
15°	940.4	918.9	873.9	853.5	843.9
17.5°	921.1	891.1	843.9	816.0	805.3
20°	898.6	863.2	808.5	776.3	763.5
22.5°	873.9	832.1	771.0	736.6	722.7
25°	844.9	798.8	733.4	695.9	677.7
27.5°	816.0	764.5	693.8	651.9	632.6
30°	787.0	728.1	650.9	605.8	585.5
32.5°	755.9	690.5	611.2	561.9	538.3
35°	719.5	653.0	568.3	516.8	491.1
37.5°	684.1	613.3	526.5	468.6	443.9
40°	650.9	575.8	484.7	421.4	395.7
42.5°	613.3	536.1	442.8	376.4	347.4
45°	575.8	495.4	400.0	328.1	299.2
47.5°	536.1	456.8	354.9	284.2	264.8
50°	500.7	417.1	315.2	250.9	238.0
52.5°	460.0	378.5	274.5	225.2	216.6
55°	419.3	336.7	234.8	202.7	196.2
57.5°	377.4	299.2	203.7	183.4	176.9
60°	333.5	260.6	179.1	163.0	159.8
62.5°	289.5	220.9	157.6	145.8	141.5
65°	246.6	183.4	138.3	127.6	125.5
67.5°	202.7	149.0	119.0	111.5	110.4
70°	161.9	121.2	100.8	96.5	94.4
72.5°	124.4	96.5	84.7	81.5	80.4
75°	87.9	77.2	69.7	67.6	66.5
77.5°	59.0	59.0	55.8	53.6	54.7
80°	40.7	42.9	41.8	41.8	41.8
82.5°	26.8	29.0	30.0	30.0	30.0
85°	15.0	17.2	18.2	18.2	19.3
87.5°	5.4	6.4	7.5	8.6	8.6
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	17.21	18.71	17.58	19.02	19.33	13.46	14.95	13.82	15.26	15.58
	3H	18.52	19.86	18.90	20.19	20.55	15.04	16.37	15.42	16.70	17.07
	4H	18.89	20.15	19.29	20.50	20.88	15.64	16.89	16.04	17.24	17.62
	6H	19.07	20.23	19.48	20.59	20.99	16.11	17.27	16.53	17.64	18.03
	8H	19.11	20.21	19.53	20.60	21.00	16.27	17.37	16.70	17.76	18.16
	12H	19.12	20.17	19.55	20.55	20.98	16.38	17.44	16.81	17.82	18.25
4H	2H	17.33	18.58	17.73	18.93	19.31	14.12	15.37	14.52	15.72	16.10
	3H	18.81	19.85	19.22	20.25	20.65	15.90	16.94	16.31	17.34	17.74
	4H	19.29	20.22	19.72	20.64	21.08	16.62	17.55	17.05	17.97	18.40
	6H	19.57	20.38	20.03	20.83	21.29	17.21	18.02	17.66	18.46	18.92
	8H	19.64	20.40	20.11	20.84	21.31	17.41	18.17	17.87	18.61	19.08
	12H	19.68	20.36	20.17	20.84	21.31	17.56	18.24	18.05	18.72	19.19
8H	4H	19.37	20.13	19.84	20.57	21.04	16.93	17.68	17.39	18.13	18.60
	6H	19.73	20.36	20.23	20.85	21.33	17.63	18.26	18.13	18.75	19.23
	8H	19.85	20.41	20.37	20.92	21.41	17.91	18.47	18.43	18.98	19.47
	12H	19.94	20.43	20.45	20.93	21.49	18.14	18.64	18.65	19.13	19.69
12H	4H	19.36	20.04	19.85	20.52	20.99	16.95	17.63	17.44	18.11	18.58
	6H	19.74	20.30	20.25	20.81	21.30	17.68	18.25	18.20	18.76	19.24
	8H	19.90	20.39	20.41	20.88	21.45	18.02	18.52	18.53	19.01	19.57