

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: P1061868

Luminaire Tested: S125RDRP-H1090D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061868  
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-H1090D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

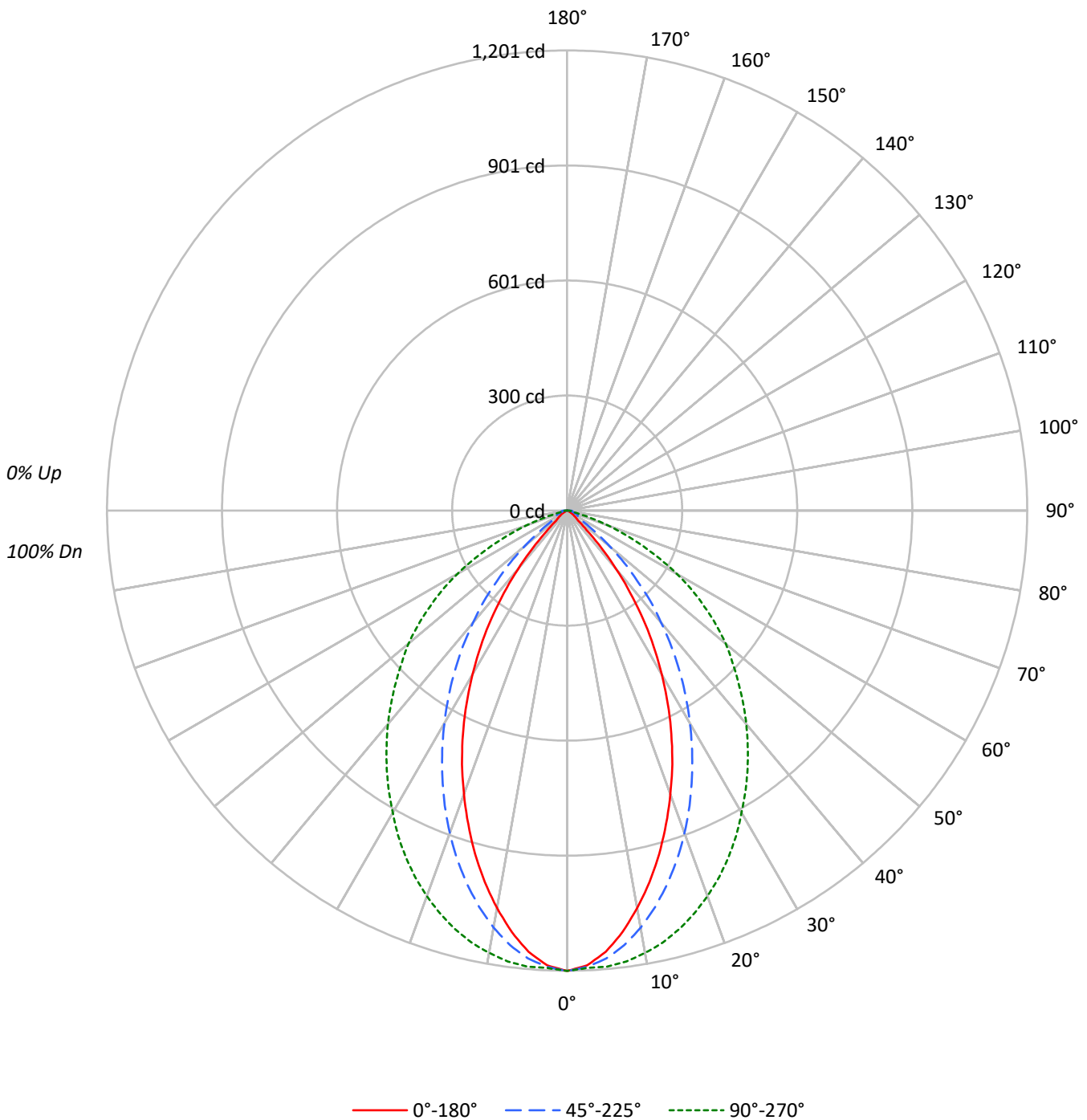
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1554.4 lumens  
Efficiency: N/A  
Efficacy: 49.8 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): 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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80					80			
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72					72			
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65					65			
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59					59			
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53					53			
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49					49			
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45					45			
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41					41			
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38					38			

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

	0°	45°	90°
0°	8272	8272	8272
5°	7990	8110	8258
10°	7364	7728	8195
15°	6613	7194	8060
20°	5771	6563	7844
25°	4888	5851	7576
30°	3927	5095	7238
35°	2906	4298	6901
40°	1799	3432	6539
45°	702	2508	6148
50°	329	1572	5791
55°	240	673	5257
60°	165	478	4559
65°	109	500	3545
70°	107	457	2231
75°	141	463	710
80°	210	527	476
85°	316	1051	735

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6148 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.2	7.1
10°-20°	285.5	18.4
20°-30°	363.6	23.4
30°-40°	338.4	21.8
40°-50°	232.9	15.0
50°-60°	131.9	8.5
60°-70°	62.3	4.0
70°-80°	19.5	1.3
80°-90°	10.2	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°	759.2	48.8
0°-40°	1097.7	70.6
0°-60°	1462.5	94.1
0°-90°	1554.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1554.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1201	1201	1201	1201	1201	
5°	1156	1172	1173	1184	1195	107
15°	928	958	1009	1085	1131	258
25°	643	685	770	900	997	293
35°	346	394	511	686	821	214
45°	72	115	258	466	631	68
55°	20	23	56	268	438	18
65°	7	8	31	96	218	7
75°	5	12	17	19	27	6
85°	4	11	13	12	9	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1201.4	1201.4	1201.4	1201.4	1201.4
2.5°	1188.1	1200.1	1192.1	1193.4	1194.8
5°	1156.0	1172.1	1173.4	1184.1	1194.8
7.5°	1109.3	1129.3	1144.0	1169.4	1186.7
10°	1053.3	1077.3	1105.3	1146.7	1172.1
12.5°	993.2	1021.2	1059.9	1118.7	1154.7
15°	927.8	958.5	1009.2	1085.3	1130.7
17.5°	858.4	893.1	954.5	1045.2	1102.6
20°	787.6	825.0	895.7	999.9	1070.6
22.5°	716.9	755.6	834.3	950.5	1035.9
25°	643.4	684.8	770.2	899.7	997.2
27.5°	568.7	611.4	706.2	847.7	955.8
30°	493.9	539.3	640.8	794.3	910.4
32.5°	420.5	465.9	576.7	740.9	866.4
35°	345.7	393.8	511.3	686.1	821.0
37.5°	271.0	323.1	447.2	630.1	774.3
40°	200.2	249.6	381.8	575.4	727.5
42.5°	133.5	181.5	323.1	520.6	679.5
45°	72.1	114.8	257.6	465.9	631.4
47.5°	38.7	61.4	201.6	412.5	584.7
50°	30.7	34.7	146.8	363.1	540.6
52.5°	25.4	28.0	96.1	316.4	489.9
55°	20.0	22.7	56.1	268.3	437.9
57.5°	16.0	18.7	36.0	222.9	387.1
60°	12.0	14.7	34.7	178.9	331.1
62.5°	9.3	10.7	32.0	137.5	272.3
65°	6.7	8.0	30.7	96.1	217.6
67.5°	5.3	6.7	28.0	61.4	162.9
70°	5.3	5.3	22.7	40.0	110.8
72.5°	5.3	9.3	20.0	26.7	66.7
75°	5.3	12.0	17.4	18.7	26.7
77.5°	5.3	13.3	14.7	14.7	14.7
80°	5.3	12.0	13.3	13.3	12.0
82.5°	5.3	10.7	12.0	13.3	10.7
85°	4.0	10.7	13.3	12.0	9.3
87.5°	4.0	10.7	12.0	10.7	6.7
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	0.21	16.59	17.88	16.95	18.19	18.50
	3H	0.00	0.00	0.00	0.23	0.59	17.31	18.45	17.69	18.78	19.14
	4H	0.00	0.71	0.05	1.06	1.45	17.33	18.39	17.73	18.74	19.13
	6H	0.90	1.88	1.32	2.25	2.64	17.28	18.26	17.69	18.63	19.02
	8H	1.54	2.47	1.97	2.86	3.26	17.26	18.18	17.69	18.57	18.98
	12H	2.13	3.02	2.57	3.40	3.83	17.24	18.12	17.67	18.50	18.93
4H	2H	1.10	2.16	1.50	2.51	2.89	16.38	17.44	16.78	17.79	18.17
	3H	1.90	2.77	2.32	3.18	3.58	17.13	18.00	17.55	18.40	18.81
	4H	2.91	3.68	3.34	4.10	4.55	17.16	17.94	17.60	18.36	18.80
	6H	4.18	4.85	4.65	5.30	5.76	17.14	17.81	17.60	18.25	18.72
	8H	4.76	5.38	5.23	5.83	6.30	17.12	17.75	17.59	18.20	18.67
	12H	5.33	5.87	5.81	6.36	6.83	17.13	17.68	17.62	18.17	18.64
8H	4H	4.33	4.95	4.80	5.40	5.87	17.05	17.67	17.52	18.12	18.59
	6H	5.88	6.39	6.39	6.89	7.37	17.03	17.54	17.54	18.04	18.52
	8H	6.68	7.13	7.20	7.65	8.14	17.05	17.50	17.57	18.02	18.51
	12H	7.52	7.92	8.04	8.42	8.99	17.11	17.51	17.62	18.00	18.58
12H	4H	4.55	5.10	5.03	5.58	6.05	17.00	17.55	17.49	18.04	18.51
	6H	6.25	6.71	6.78	7.23	7.72	16.99	17.44	17.51	17.96	18.45
	8H	7.25	7.65	7.76	8.14	8.72	17.04	17.44	17.55	17.93	18.51