

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060775

Luminaire Tested: S124RDR-H1195D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060775  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H1195D940-X4F0-XX-UDD-WVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

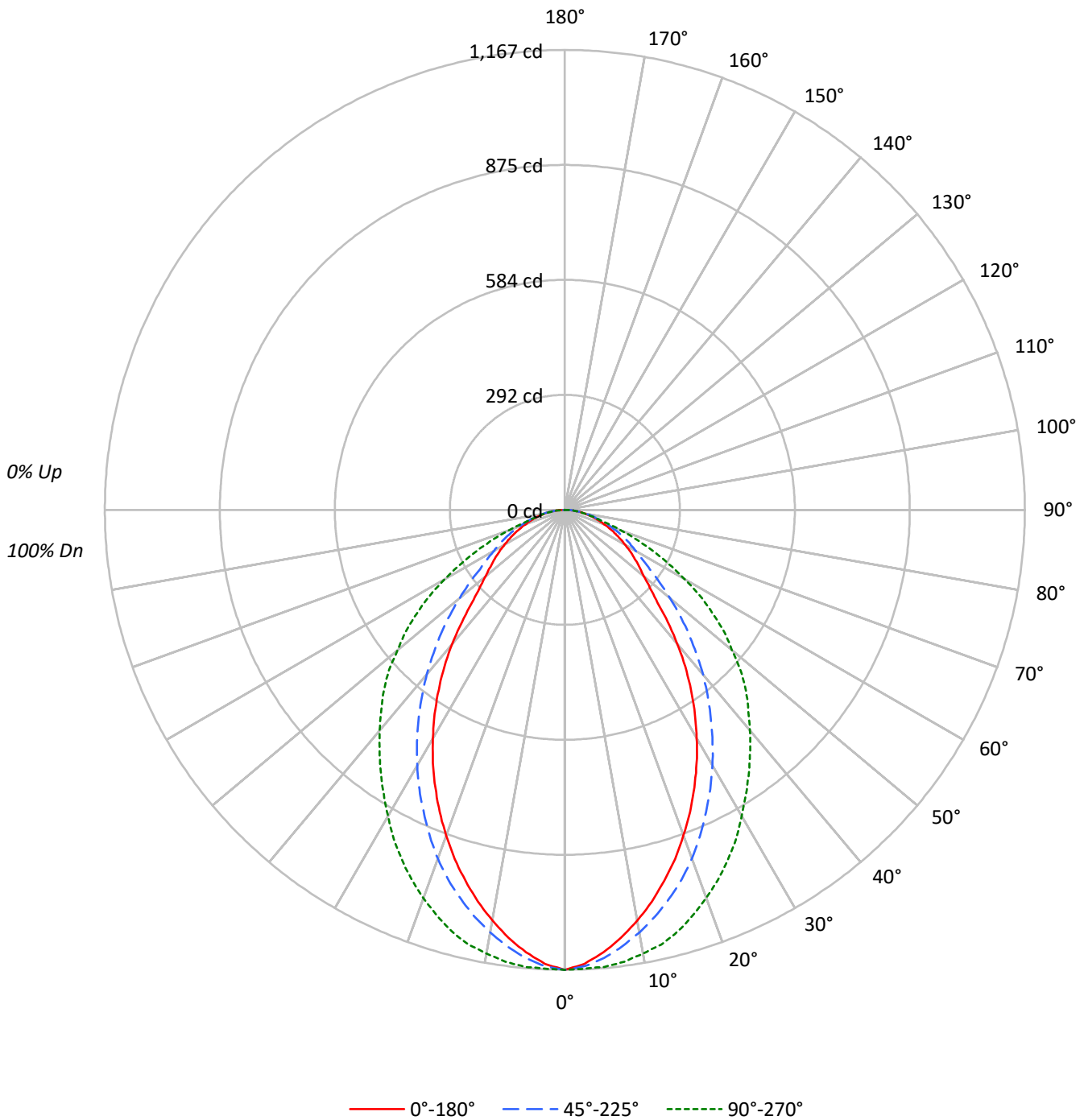
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2125.4 lumens  
Efficiency: N/A  
Efficacy: 58.2 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.5  
Input Voltage (V): 120  
Input Current (Ain): 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									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	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																												
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																												
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																												
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50																												
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41																												
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37																												
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31																												

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

	0°	45°	90°
0°	10053	10053	10053
5°	9743	9869	10060
10°	9255	9523	9994
15°	8684	9109	9873
20°	8063	8635	9610
25°	7383	8046	9302
30°	6656	7447	8919
35°	5866	6792	8555
40°	4993	6122	8213
45°	4054	5409	7913
50°	3509	4655	7410
55°	3252	3950	6871
60°	3035	3562	6028
65°	2842	3342	5012
70°	2649	3082	3789
75°	2525	2851	2728
80°	2365	2608	2306
85°	2174	2421	1818

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7913 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.8	5.1
10°-20°	289.7	13.6
20°-30°	395.6	18.6
30°-40°	414.5	19.5
40°-50°	358.7	16.9
50°-60°	269.6	12.7
60°-70°	173.8	8.2
70°-80°	89.1	4.2
80°-90°	26.6	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°	793.1	37.3
0°-40°	1207.5	56.8
0°-60°	1835.8	86.4
0°-90°	2125.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2125.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1167	1167	1167	1167	1167	
5°	1127	1144	1142	1150	1164	105
15°	974	999	1022	1068	1108	273
25°	777	806	847	913	979	357
35°	558	590	646	732	814	348
45°	333	367	444	553	650	262
55°	217	224	263	376	458	195
65°	140	142	164	198	246	139
75°	76	84	86	84	82	80
85°	22	26	24	23	18	25
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1167.4	1167.4	1167.4	1167.4	1167.4
2.5°	1152.8	1167.4	1158.9	1161.3	1165.0
5°	1127.1	1144.2	1141.7	1150.3	1163.8
7.5°	1095.2	1113.6	1117.3	1136.8	1156.4
10°	1058.5	1079.3	1089.1	1118.5	1143.0
12.5°	1018.1	1040.2	1057.3	1094.0	1129.5
15°	974.1	998.6	1021.8	1068.3	1107.5
17.5°	928.8	953.3	983.9	1035.3	1079.3
20°	879.9	906.8	942.3	996.1	1048.7
22.5°	829.7	857.8	895.8	954.5	1015.7
25°	777.1	806.4	846.8	912.9	979.0
27.5°	724.4	753.8	799.1	868.8	941.0
30°	669.4	700.0	748.9	824.8	897.0
32.5°	614.3	647.4	697.5	778.3	855.4
35°	558.0	589.8	646.1	731.8	813.8
37.5°	501.7	534.8	594.7	686.5	772.2
40°	444.2	478.5	544.6	641.2	730.6
42.5°	386.7	423.4	493.2	594.7	689.0
45°	332.9	367.1	444.2	553.1	649.8
47.5°	292.5	315.7	395.3	512.7	605.7
50°	261.9	274.1	347.5	468.7	553.1
52.5°	238.6	247.2	303.5	421.0	510.3
55°	216.6	223.9	263.1	375.7	457.7
57.5°	197.0	200.7	232.5	331.6	407.5
60°	176.2	179.9	206.8	283.9	350.0
62.5°	157.9	160.3	186.0	238.6	297.4
65°	139.5	142.0	164.0	198.2	246.0
67.5°	122.4	126.0	143.2	161.5	195.8
70°	105.2	112.6	122.4	130.9	150.5
72.5°	90.6	97.9	102.8	105.2	106.5
75°	75.9	84.4	85.7	84.4	82.0
77.5°	61.2	68.5	68.5	66.1	63.6
80°	47.7	53.8	52.6	50.2	46.5
82.5°	35.5	39.2	37.9	35.5	31.8
85°	22.0	25.7	24.5	23.3	18.4
87.5°	11.0	14.7	13.5	12.2	7.3
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	14.45	15.93	14.82	16.25	16.56	18.22	19.71	18.59	20.02	20.34
	3H	16.11	17.43	16.48	17.76	18.13	19.34	20.67	19.72	20.99	21.36
	4H	16.78	18.02	17.18	18.37	18.75	19.63	20.87	20.03	21.22	21.60
	6H	17.29	18.44	17.70	18.81	19.20	19.82	20.97	20.24	21.34	21.73
	8H	17.47	18.56	17.90	18.95	19.36	19.88	20.97	20.31	21.36	21.76
	12H	17.60	18.64	18.03	19.03	19.45	19.90	20.95	20.34	21.33	21.76
4H	2H	15.23	16.48	15.63	16.83	17.21	18.38	19.63	18.78	19.98	20.36
	3H	17.10	18.13	17.51	18.53	18.93	19.69	20.73	20.11	21.13	21.53
	4H	17.90	18.83	18.34	19.25	19.69	20.10	21.03	20.54	21.45	21.89
	6H	18.55	19.36	19.01	19.80	20.26	20.42	21.23	20.88	21.67	22.13
	8H	18.78	19.53	19.24	19.98	20.45	20.51	21.26	20.97	21.71	22.18
	12H	18.95	19.62	19.43	20.10	20.57	20.57	21.25	21.06	21.72	22.20
8H	4H	18.25	19.01	18.72	19.45	19.92	20.24	20.99	20.70	21.43	21.90
	6H	19.05	19.67	19.54	20.16	20.64	20.65	21.27	21.15	21.76	22.24
	8H	19.37	19.93	19.88	20.44	20.93	20.80	21.36	21.31	21.87	22.36
	12H	19.63	20.13	20.14	20.62	21.18	20.92	21.42	21.43	21.91	22.48
12H	4H	18.28	18.96	18.77	19.43	19.91	20.24	20.91	20.72	21.39	21.86
	6H	19.11	19.67	19.62	20.18	20.67	20.67	21.23	21.18	21.74	22.23
	8H	19.49	19.99	20.00	20.48	21.05	20.87	21.37	21.38	21.86	22.42