

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: P1060824

Luminaire Tested: S124RDR-H350D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060824  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H350D927-X4F0-XX-UDD-BVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

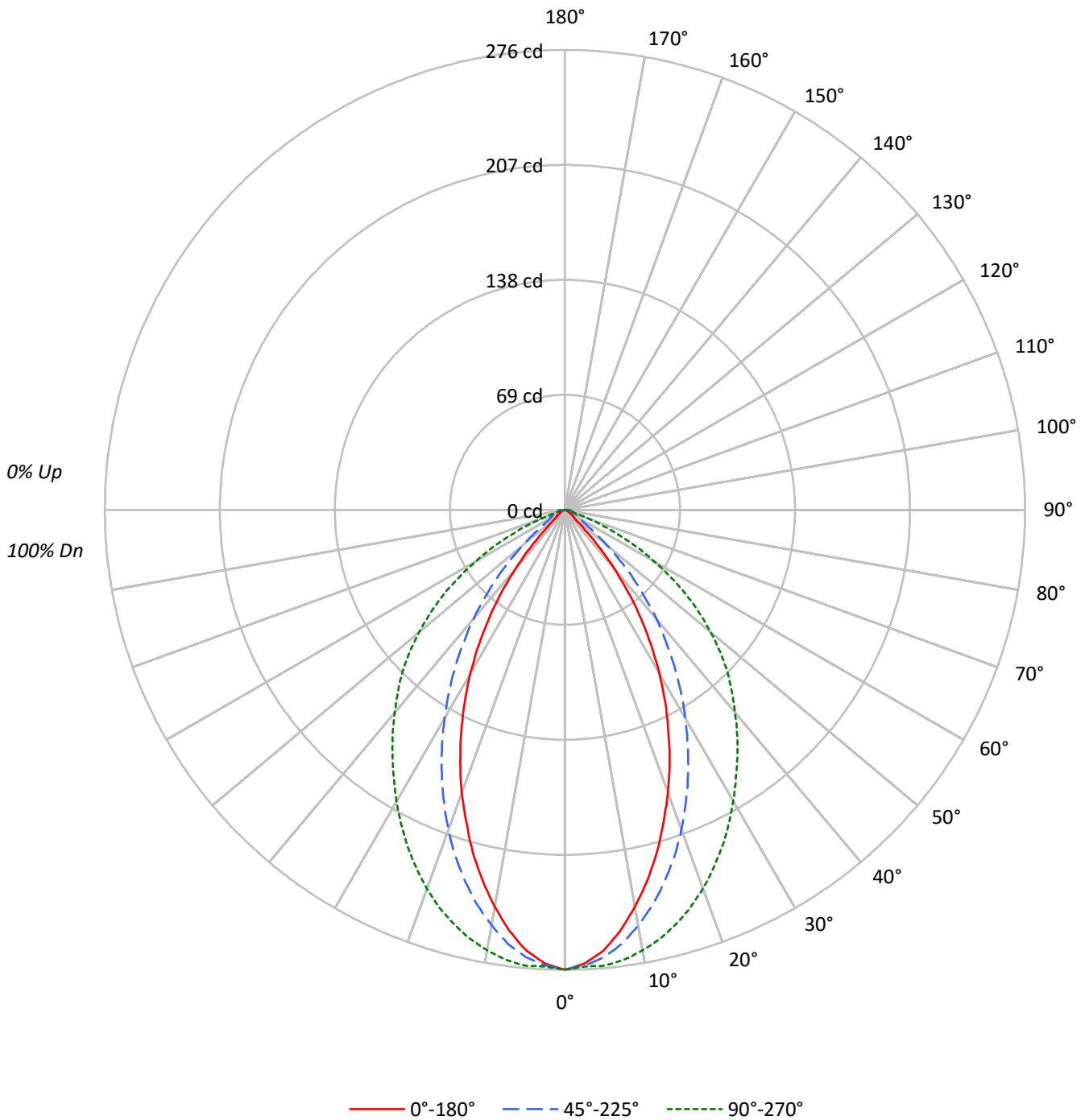
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 347.7 lumens  
Efficiency: N/A  
Efficacy: 29.7 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
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	
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				

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

	0°	45°	90°
0°	2376	2376	2376
5°	2295	2329	2374
10°	2115	2214	2347
15°	1900	2058	2295
20°	1656	1872	2217
25°	1397	1661	2120
30°	1127	1436	2009
35°	834	1202	1896
40°	517	958	1784
45°	205	698	1679
50°	91	438	1527
55°	74	228	1336
60°	50	172	1064
65°	33	171	731
70°	33	156	342
75°	43	150	150
80°	64	179	179
85°	128	356	257

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1679 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.3	7.3
10°-20°	65.3	18.8
20°-30°	82.4	23.7
30°-40°	75.6	21.8
40°-50°	51.5	14.8
50°-60°	28.1	8.1
60°-70°	12.1	3.5
70°-80°	4.4	1.3
80°-90°	2.9	0.8
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°	173.1	49.8
0°-40°	248.7	71.5
0°-60°	328.3	94.4
0°-90°	347.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	347.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	276	276	276	276	276	
5°	266	269	269	272	275	25
15°	213	220	231	247	257	59
25°	147	157	175	203	223	67
35°	79	91	114	151	180	49
45°	17	28	57	102	138	16
55°	5	5	15	56	89	4
65°	2	2	8	18	36	2
75°	1	4	4	4	4	1
85°	1	3	4	4	3	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	275.9	275.9	275.9	275.9	275.9
2.5°	272.6	275.9	273.6	274.3	274.3
5°	265.5	269.1	269.4	272.3	274.6
7.5°	254.8	260.0	262.6	268.4	272.3
10°	241.9	248.0	253.2	263.2	268.4
12.5°	228.0	235.1	242.8	256.1	263.6
15°	213.1	220.5	230.9	247.4	257.4
17.5°	196.5	205.6	218.2	238.0	250.3
20°	180.7	189.7	204.3	226.7	241.9
22.5°	164.2	173.6	189.7	214.7	232.8
25°	147.0	157.4	174.8	202.7	223.1
27.5°	130.2	141.2	159.6	190.1	212.7
30°	113.3	124.3	144.4	177.1	202.0
32.5°	96.2	107.5	129.2	163.5	191.0
35°	79.3	91.0	114.3	150.6	180.4
37.5°	62.2	74.5	99.4	137.9	169.7
40°	46.0	58.3	85.2	125.3	158.7
42.5°	30.8	43.1	70.6	113.0	148.3
45°	16.8	28.2	57.3	101.7	137.9
47.5°	9.1	15.5	44.4	90.7	126.3
50°	6.8	8.4	32.7	79.0	114.0
52.5°	5.8	6.5	22.7	66.7	101.7
55°	4.9	5.2	15.2	56.0	89.0
57.5°	3.9	4.2	11.3	45.3	75.4
60°	2.9	3.6	10.0	35.0	61.8
62.5°	2.3	2.9	9.4	25.6	48.9
65°	1.6	2.3	8.4	17.5	35.9
67.5°	1.6	2.6	7.1	11.3	24.3
70°	1.3	3.6	6.2	7.4	13.6
72.5°	1.3	3.9	5.2	5.2	5.2
75°	1.3	4.2	4.5	4.5	4.5
77.5°	1.3	3.9	4.2	3.9	3.9
80°	1.3	3.6	3.6	3.6	3.6
82.5°	1.3	3.2	3.6	3.6	2.9
85°	1.3	2.9	3.6	3.6	2.6
87.5°	1.0	2.9	3.2	3.2	1.9
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	11.41	12.69	11.78	13.00	13.32
	3H	0.00	0.00	0.00	0.00	0.00	11.79	12.92	12.17	13.25	13.61
	4H	0.00	0.00	0.00	0.00	0.00	11.76	12.82	12.17	13.17	13.55
	6H	0.00	0.00	0.00	0.00	0.00	11.75	12.72	12.17	13.09	13.48
	8H	0.00	0.00	0.00	0.00	0.19	11.75	12.67	12.18	13.06	13.46
	12H	0.00	0.02	0.00	0.40	0.83	11.77	12.64	12.20	13.02	13.45
4H	2H	0.00	0.00	0.00	0.00	0.00	11.22	12.27	11.62	12.62	13.01
	3H	0.00	0.11	0.00	0.52	0.92	11.64	12.50	12.05	12.90	13.31
	4H	0.54	1.31	0.98	1.73	2.17	11.64	12.41	12.07	12.83	13.27
	6H	1.68	2.34	2.15	2.79	3.26	11.68	12.34	12.14	12.79	13.26
	8H	2.19	2.80	2.66	3.25	3.72	11.71	12.33	12.18	12.77	13.25
	12H	2.73	3.28	3.22	3.76	4.24	11.77	12.32	12.26	12.80	13.28
8H	4H	1.62	2.24	2.09	2.69	3.16	11.55	12.17	12.02	12.61	13.08
	6H	3.18	3.69	3.69	4.19	4.67	11.63	12.13	12.13	12.63	13.11
	8H	3.98	4.43	4.50	4.95	5.44	11.72	12.17	12.24	12.69	13.18
	12H	4.80	5.21	5.32	5.70	6.27	11.89	12.29	12.40	12.79	13.36
12H	4H	1.82	2.36	2.30	2.85	3.32	11.51	12.06	12.00	12.54	13.02
	6H	3.54	4.00	4.07	4.52	5.01	11.60	12.06	12.13	12.57	13.07
	8H	4.54	4.95	5.06	5.44	6.01	11.74	12.15	12.26	12.64	13.21