

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: P1060398

Luminaire Tested: S124RDRP-S350D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060398  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S350D835-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

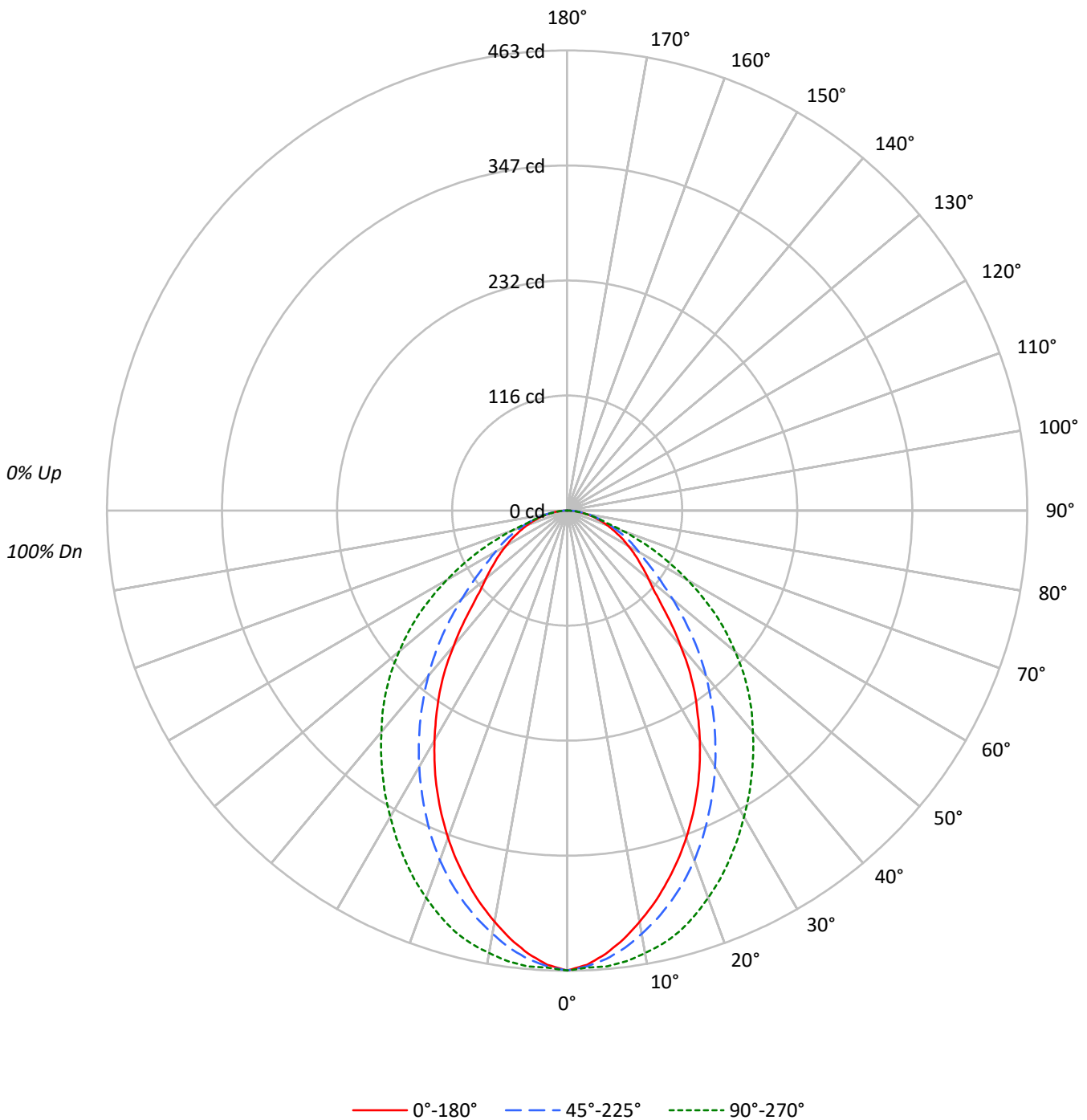
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 849.0 lumens  
Efficiency: N/A  
Efficacy: 67.9 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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	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	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31

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

	0°	45°	90°
0°	3984	3984	3984
5°	3869	3915	3979
10°	3673	3781	3953
15°	3454	3621	3907
20°	3212	3430	3801
25°	2945	3202	3677
30°	2655	2960	3538
35°	2351	2708	3405
40°	1998	2444	3268
45°	1636	2159	3142
50°	1432	1854	2957
55°	1315	1599	2735
60°	1219	1438	2411
65°	1143	1351	2019
70°	1073	1236	1516
75°	1008	1131	1105
80°	932	1036	932
85°	850	1008	810

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3142 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.8	5.0
10°-20°	115.1	13.6
20°-30°	157.3	18.5
30°-40°	165.3	19.5
40°-50°	143.4	16.9
50°-60°	108.2	12.7
60°-70°	70.1	8.3
70°-80°	36.0	4.2
80°-90°	10.9	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°	315.1	37.1
0°-40°	480.4	56.6
0°-60°	732.0	86.2
0°-90°	849.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	849.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	463	463	463	463	463	
5°	448	454	453	457	460	42
15°	387	397	406	425	438	109
25°	310	321	337	363	387	142
35°	224	236	258	292	324	139
45°	134	147	177	222	258	106
55°	88	90	106	151	182	79
65°	56	57	66	80	99	56
75°	30	34	34	34	33	32
85°	9	11	10	10	8	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	462.7	462.7	462.7	462.7	462.7
2.5°	457.4	463.1	459.0	459.9	460.3
5°	447.6	453.7	452.9	456.6	460.3
7.5°	434.9	442.2	443.9	451.3	457.4
10°	420.1	428.3	432.4	444.3	452.1
12.5°	404.6	412.8	420.1	435.3	446.3
15°	387.4	396.8	406.2	424.6	438.2
17.5°	369.4	379.2	391.1	411.1	427.1
20°	350.5	360.4	374.3	396.0	414.8
22.5°	330.5	341.5	356.3	379.6	401.7
25°	310.0	321.0	337.0	362.8	387.0
27.5°	288.7	300.2	317.4	346.0	371.8
30°	267.0	279.3	297.7	328.0	355.8
32.5°	244.9	258.0	277.6	310.0	340.3
35°	223.6	235.9	257.6	292.0	323.9
37.5°	201.5	213.8	237.1	274.4	307.5
40°	177.7	191.2	217.4	255.9	290.7
42.5°	155.6	169.1	197.4	238.3	274.8
45°	134.3	147.0	177.3	221.5	258.0
47.5°	117.9	126.9	157.2	205.2	240.0
50°	106.9	111.0	138.4	187.1	220.7
52.5°	97.0	100.3	121.2	169.1	201.9
55°	87.6	90.1	106.5	151.1	182.2
57.5°	79.4	80.7	93.4	133.1	160.9
60°	70.8	72.5	83.5	114.7	140.0
62.5°	63.9	64.7	74.9	97.0	119.2
65°	56.1	57.3	66.3	80.3	99.1
67.5°	49.1	51.2	57.3	65.5	78.2
70°	42.6	45.5	49.1	53.2	60.2
72.5°	36.4	39.7	41.8	43.4	42.2
75°	30.3	34.0	34.0	34.4	33.2
77.5°	24.6	27.8	27.4	27.0	25.4
80°	18.8	21.7	20.9	20.5	18.8
82.5°	13.9	16.0	15.2	14.7	12.7
85°	8.6	10.6	10.2	9.8	8.2
87.5°	4.1	6.1	5.7	5.3	3.7
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	11.31	12.79	11.67	13.11	13.42	15.04	16.53	15.41	16.84	17.16
	3H	12.97	14.31	13.35	14.64	15.00	16.17	17.50	16.55	17.83	18.19
	4H	13.64	14.89	14.04	15.24	15.62	16.47	17.72	16.87	18.06	18.44
	6H	14.15	15.30	14.56	15.67	16.06	16.67	17.82	17.08	18.19	18.58
	8H	14.32	15.42	14.75	15.81	16.21	16.72	17.82	17.15	18.21	18.61
	12H	14.44	15.49	14.87	15.87	16.30	16.75	17.80	17.18	18.19	18.62
4H	2H	12.10	13.35	12.50	13.70	14.08	15.21	16.46	15.61	16.81	17.19
	3H	13.97	15.01	14.38	15.41	15.81	16.54	17.58	16.95	17.98	18.38
	4H	14.77	15.71	15.21	16.12	16.56	16.96	17.89	17.39	18.30	18.74
	6H	15.42	16.23	15.87	16.67	17.13	17.28	18.09	17.74	18.53	18.99
	8H	15.64	16.40	16.10	16.84	17.31	17.37	18.13	17.84	18.57	19.04
	12H	15.80	16.48	16.29	16.96	17.43	17.44	18.12	17.93	18.60	19.07
8H	4H	15.12	15.88	15.59	16.32	16.79	17.09	17.85	17.55	18.29	18.76
	6H	15.91	16.54	16.41	17.03	17.51	17.51	18.13	18.01	18.63	19.10
	8H	16.23	16.79	16.74	17.30	17.79	17.67	18.23	18.18	18.74	19.23
	12H	16.49	16.99	17.00	17.48	18.05	17.80	18.30	18.31	18.79	19.36
12H	4H	15.15	15.83	15.64	16.31	16.78	17.09	17.77	17.58	18.25	18.72
	6H	15.97	16.54	16.49	17.05	17.53	17.53	18.09	18.05	18.60	19.09
	8H	16.36	16.86	16.87	17.35	17.91	17.74	18.24	18.25	18.73	19.29