

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: P1060800

Luminaire Tested: S124RDR-H350D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060800  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H350D835-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

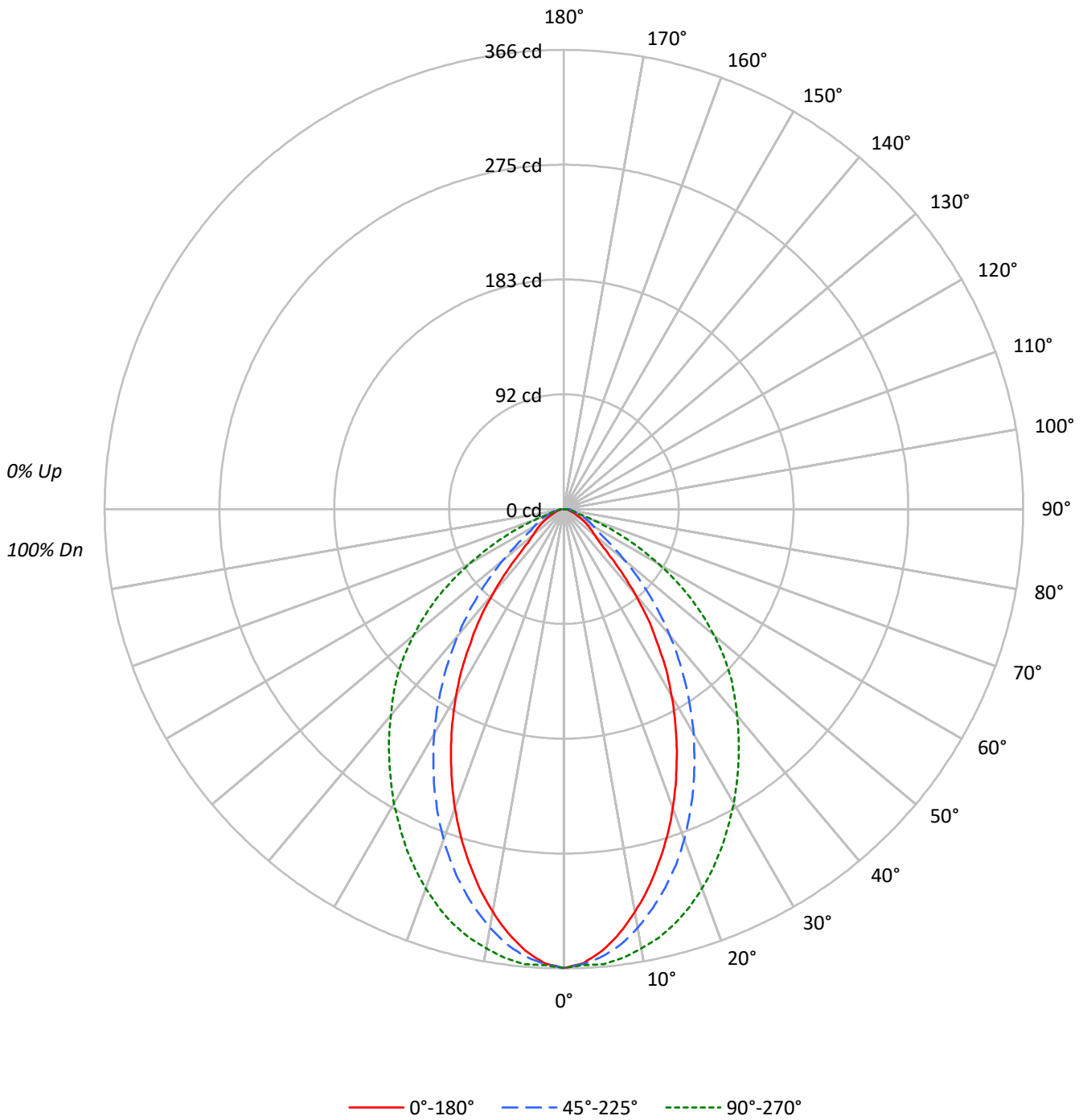
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 517.6 lumens  
Efficiency: N/A  
Efficacy: 44.2 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
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			100	
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89	
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79			79	
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70			70	
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63			63	
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57			57	
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51			51	
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43			43	
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36			36	

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

	0°	45°	90°
0°	3149	3149	3149
5°	3052	3091	3147
10°	2851	2962	3108
15°	2601	2783	3049
20°	2326	2569	2947
25°	2023	2322	2827
30°	1706	2056	2694
35°	1357	1770	2551
40°	988	1475	2411
45°	597	1164	2285
50°	427	843	2091
55°	362	570	1847
60°	296	465	1491
65°	232	416	1074
70°	196	350	566
75°	176	326	286
80°	183	322	283
85°	247	484	326

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2285 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.7	6.5
10°-20°	88.2	17.0
20°-30°	114.4	22.1
30°-40°	110.2	21.3
40°-50°	81.9	15.8
50°-60°	50.4	9.7
60°-70°	24.7	4.8
70°-80°	9.7	1.9
80°-90°	4.4	0.9
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°	236.3	45.7
0°-40°	346.5	66.9
0°-60°	478.8	92.5
0°-90°	517.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	517.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	366	366	366	366	366	
5°	353	358	358	361	364	33
15°	292	301	312	331	342	82
25°	213	224	244	275	298	97
35°	129	141	168	210	243	81
45°	49	61	96	148	188	41
55°	24	25	38	87	123	22
65°	11	12	20	33	53	12
75°	5	9	10	9	9	6
85°	2	4	5	5	3	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	365.7	365.7	365.7	365.7	365.7
2.5°	362.1	366.1	362.9	363.3	363.7
5°	353.1	358.4	357.6	360.8	364.1
7.5°	340.8	346.9	349.8	356.3	360.8
10°	326.1	333.0	338.8	349.4	355.5
12.5°	309.8	317.9	326.1	340.4	349.8
15°	291.8	301.2	312.2	331.0	342.0
17.5°	273.4	282.8	297.1	318.7	332.6
20°	253.8	264.0	280.3	304.4	321.6
22.5°	233.3	244.4	262.4	289.7	310.2
25°	212.9	224.3	244.4	275.0	297.5
27.5°	192.5	203.5	225.2	259.5	284.0
30°	171.6	183.1	206.8	242.7	270.9
32.5°	151.6	162.2	187.6	226.8	256.6
35°	129.1	141.4	168.4	210.5	242.7
37.5°	109.9	121.0	150.0	194.1	228.8
40°	87.9	100.1	131.2	178.2	214.5
42.5°	67.4	79.7	113.2	162.2	201.1
45°	49.0	60.9	95.6	147.5	187.6
47.5°	37.2	44.1	78.5	133.2	172.4
50°	31.9	33.9	62.9	117.7	156.1
52.5°	28.2	29.0	49.0	102.2	139.8
55°	24.1	24.9	38.0	86.6	123.0
57.5°	20.4	20.8	30.6	71.9	105.0
60°	17.2	17.6	27.0	57.6	86.6
62.5°	14.3	14.7	24.1	44.5	69.1
65°	11.4	12.3	20.4	32.7	52.7
67.5°	9.4	11.0	17.2	22.9	36.8
70°	7.8	10.6	13.9	15.9	22.5
72.5°	6.5	9.8	11.9	11.4	11.0
75°	5.3	9.4	9.8	9.0	8.6
77.5°	4.5	8.2	8.2	7.4	6.9
80°	3.7	6.5	6.5	6.5	5.7
82.5°	3.3	5.3	5.7	5.7	4.5
85°	2.5	4.5	4.9	4.9	3.3
87.5°	1.6	4.1	4.5	4.1	2.5
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	3.76	5.10	4.12	5.41	5.73	12.94	14.28	13.30	14.59	14.91
	3H	4.87	6.06	5.25	6.39	6.76	13.44	14.64	13.82	14.96	15.33
	4H	5.39	6.50	5.79	6.85	7.23	13.46	14.57	13.87	14.92	15.31
	6H	5.83	6.85	6.24	7.22	7.61	13.47	14.50	13.89	14.87	15.26
	8H	6.02	6.99	6.45	7.38	7.78	13.48	14.44	13.91	14.84	15.24
	12H	6.21	7.13	6.64	7.51	7.94	13.48	14.41	13.91	14.79	15.22
4H	2H	4.90	6.01	5.31	6.37	6.75	12.83	13.94	13.23	14.29	14.67
	3H	6.25	7.16	6.66	7.56	7.96	13.42	14.33	13.83	14.73	15.13
	4H	6.98	7.80	7.42	8.22	8.66	13.48	14.29	13.91	14.71	15.15
	6H	7.59	8.30	8.06	8.74	9.21	13.55	14.25	14.01	14.70	15.17
	8H	7.84	8.50	8.31	8.94	9.41	13.58	14.24	14.05	14.68	15.16
	12H	8.08	8.66	8.57	9.14	9.62	13.62	14.20	14.11	14.69	15.16
8H	4H	7.45	8.11	7.92	8.56	9.03	13.44	14.09	13.90	14.54	15.01
	6H	8.30	8.84	8.80	9.33	9.82	13.56	14.10	14.06	14.59	15.08
	8H	8.71	9.19	9.23	9.71	10.20	13.64	14.13	14.17	14.64	15.13
	12H	9.14	9.56	9.65	10.06	10.63	13.77	14.19	14.28	14.69	15.26
12H	4H	7.51	8.09	7.99	8.57	9.04	13.41	13.99	13.89	14.47	14.95
	6H	8.43	8.92	8.95	9.43	9.92	13.54	14.03	14.06	14.54	15.03
	8H	8.96	9.38	9.47	9.88	10.45	13.68	14.10	14.19	14.60	15.17