

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: P1060749

Luminaire Tested: S124RDR-H1195D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060749  
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: S124RDR-H1195D927-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

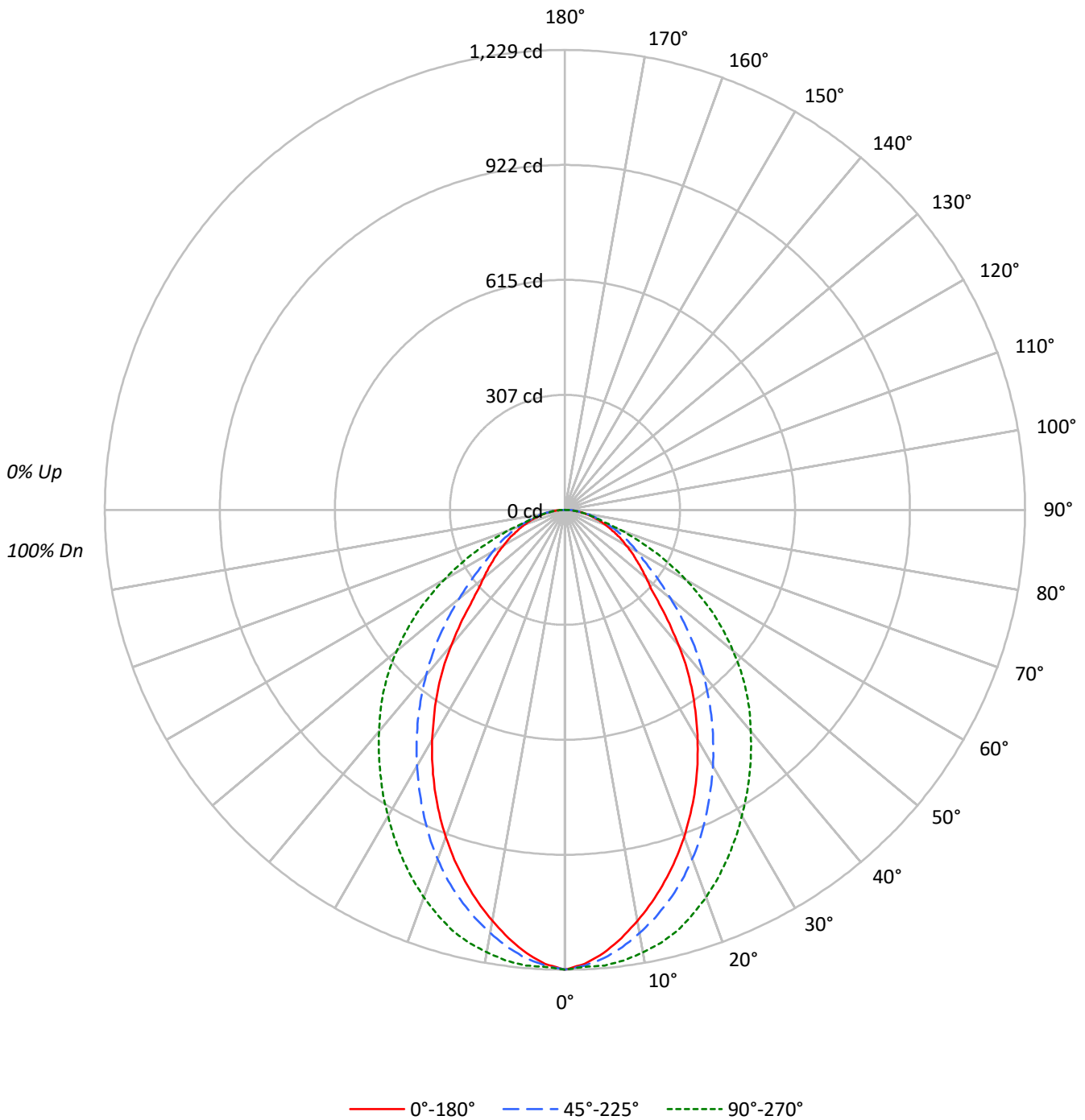
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2254.4 lumens  
Efficiency: N/A  
Efficacy: 61.8 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): 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	
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	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°	10580	10580	10580
5°	10273	10394	10564
10°	9754	10040	10496
15°	9170	9616	10372
20°	8529	9107	10093
25°	7821	8502	9763
30°	7049	7860	9394
35°	6241	7189	9041
40°	5305	6489	8678
45°	4343	5733	8342
50°	3802	4923	7850
55°	3494	4244	7263
60°	3240	3820	6403
65°	3036	3588	5361
70°	2848	3286	4023
75°	2678	3001	2931
80°	2479	2752	2479
85°	2253	2687	2144

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8342 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.5	5.0
10°-20°	305.5	13.6
20°-30°	417.6	18.5
30°-40°	438.9	19.5
40°-50°	380.9	16.9
50°-60°	287.3	12.7
60°-70°	186.2	8.3
70°-80°	95.6	4.2
80°-90°	29.0	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°	836.6	37.1
0°-40°	1275.5	56.6
0°-60°	1943.7	86.2
0°-90°	2254.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2254.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1229	1229	1229	1229	1229	
5°	1188	1205	1202	1212	1222	111
15°	1029	1054	1079	1128	1163	288
25°	823	852	895	963	1028	377
35°	594	626	684	775	860	369
45°	357	390	471	588	685	281
55°	233	239	283	401	484	209
65°	149	152	176	213	263	148
75°	80	90	90	91	88	85
85°	23	28	27	26	22	26
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1228.6	1228.6	1228.6	1228.6	1228.6
2.5°	1214.5	1229.7	1218.8	1221.0	1222.1
5°	1188.4	1204.7	1202.5	1212.3	1222.1
7.5°	1154.7	1174.3	1178.6	1198.2	1214.5
10°	1115.5	1137.3	1148.2	1179.7	1200.4
12.5°	1074.2	1096.0	1115.5	1155.8	1185.1
15°	1028.6	1053.6	1078.6	1127.5	1163.4
17.5°	980.7	1006.8	1038.4	1091.6	1134.0
20°	930.7	956.8	993.8	1051.4	1101.4
22.5°	877.4	906.8	945.9	1007.9	1066.6
25°	823.1	852.4	894.8	963.3	1027.5
27.5°	766.5	797.0	842.6	918.8	987.2
30°	708.9	741.5	790.5	870.9	944.8
32.5°	650.2	685.0	737.2	823.1	903.5
35°	593.7	626.3	683.9	775.2	860.0
37.5°	534.9	567.6	629.5	728.5	816.5
40°	471.9	507.8	577.3	679.5	772.0
42.5°	413.2	449.0	524.1	632.8	729.6
45°	356.6	390.3	470.8	588.2	685.0
47.5°	313.1	337.1	417.5	544.7	637.1
50°	283.8	294.7	367.5	496.9	586.0
52.5°	257.7	266.4	321.8	449.0	536.0
55°	232.7	239.2	282.7	401.2	483.8
57.5°	210.9	214.2	247.9	353.4	427.3
60°	188.1	192.4	221.8	304.4	371.8
62.5°	169.6	171.8	199.0	257.7	316.4
65°	149.0	152.2	176.1	213.1	263.1
67.5°	130.5	135.9	152.2	174.0	207.7
70°	113.1	120.7	130.5	141.3	159.8
72.5°	96.8	105.5	110.9	115.3	112.0
75°	80.5	90.2	90.2	91.3	88.1
77.5°	65.2	73.9	72.8	71.8	67.4
80°	50.0	57.6	55.5	54.4	50.0
82.5°	37.0	42.4	40.2	39.1	33.7
85°	22.8	28.3	27.2	26.1	21.7
87.5°	10.9	16.3	15.2	14.1	9.8
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	14.70	16.19	15.06	16.50	16.81	18.44	19.92	18.80	20.24	20.55
	3H	16.37	17.70	16.74	18.03	18.39	19.56	20.90	19.94	21.22	21.59
	4H	17.03	18.28	17.43	18.63	19.01	19.86	21.11	20.26	21.46	21.84
	6H	17.54	18.69	17.95	19.06	19.45	20.06	21.21	20.47	21.58	21.97
	8H	17.72	18.81	18.14	19.20	19.60	20.11	21.21	20.54	21.60	22.00
	12H	17.84	18.89	18.27	19.27	19.70	20.15	21.20	20.58	21.58	22.01
4H	2H	15.49	16.74	15.89	17.09	17.47	18.60	19.85	19.00	20.20	20.58
	3H	17.36	18.40	17.77	18.80	19.20	19.93	20.97	20.34	21.37	21.77
	4H	18.17	19.10	18.60	19.51	19.95	20.35	21.28	20.78	21.70	22.14
	6H	18.81	19.62	19.27	20.06	20.52	20.67	21.48	21.13	21.92	22.39
	8H	19.03	19.79	19.50	20.23	20.70	20.77	21.52	21.23	21.97	22.44
	12H	19.20	19.87	19.68	20.35	20.82	20.84	21.51	21.32	21.99	22.46
8H	4H	18.51	19.27	18.98	19.72	20.18	20.48	21.24	20.95	21.68	22.15
	6H	19.30	19.93	19.80	20.42	20.90	20.90	21.53	21.40	22.02	22.50
	8H	19.62	20.18	20.14	20.69	21.18	21.06	21.62	21.57	22.13	22.62
	12H	19.89	20.38	20.40	20.87	21.44	21.20	21.69	21.71	22.19	22.75
12H	4H	18.54	19.22	19.03	19.70	20.17	20.49	21.16	20.97	21.64	22.11
	6H	19.37	19.93	19.88	20.44	20.93	20.92	21.49	21.44	22.00	22.48
	8H	19.75	20.25	20.26	20.74	21.31	21.13	21.63	21.64	22.12	22.69