

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: P1059534

Luminaire Tested: S123RDRP-H1165D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059534  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-H1165D927-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 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: -

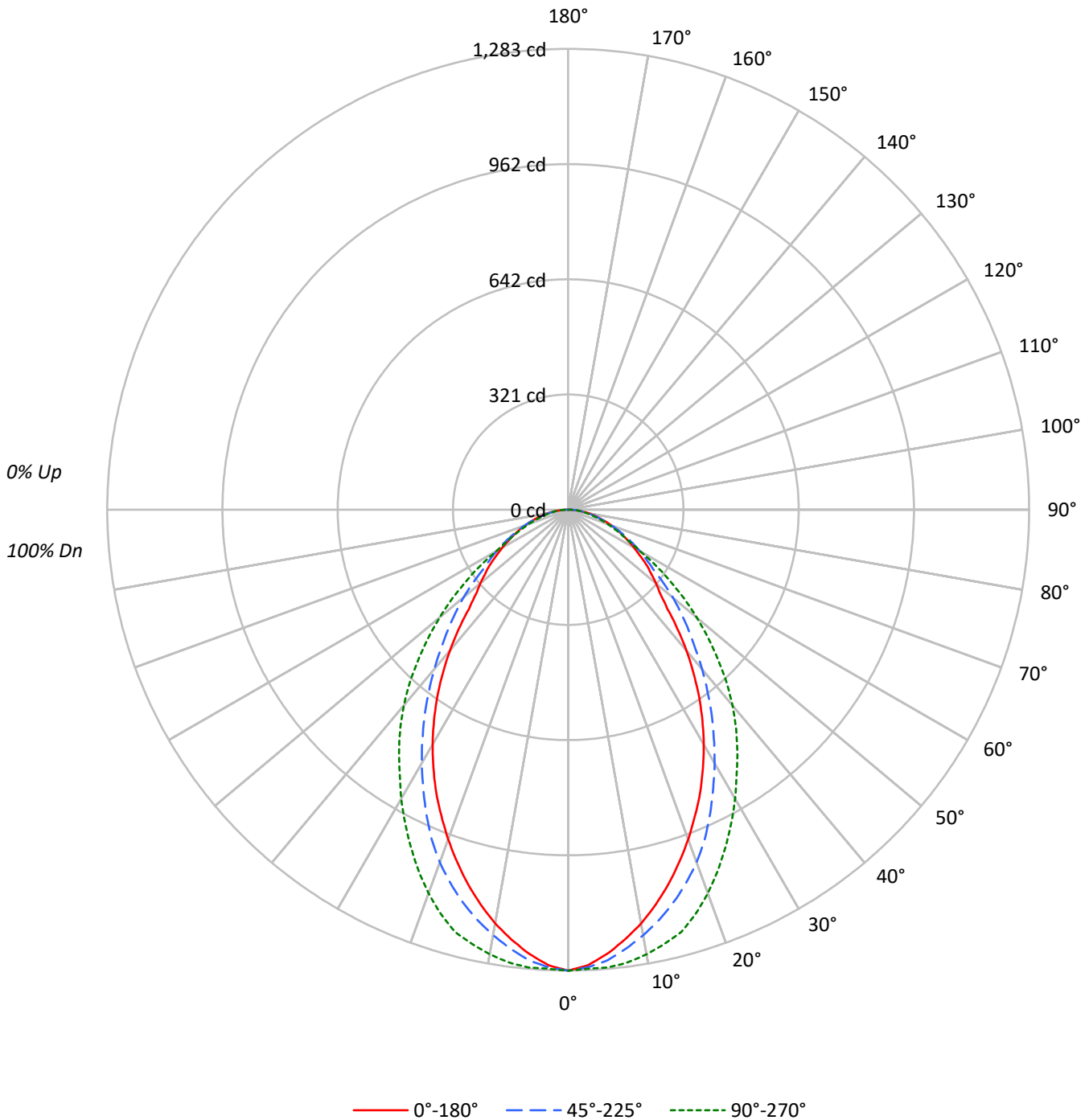
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2255.3 lumens  
Efficiency: N/A  
Efficacy: 61.8 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.5  
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	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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89					87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77					75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68					66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60					58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53					51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48					46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43					41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39					38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36					34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33					32				

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

	0°	45°	90°
0°	15070	15070	15070
5°	14634	14841	15076
10°	13947	14342	14987
15°	13118	13763	14797
20°	12201	13057	14202
25°	11263	12106	13423
30°	10229	11052	12595
35°	9104	9974	11765
40°	7856	8889	10903
45°	6493	7868	9776
50°	5831	6942	8535
55°	5405	5925	7077
60°	4981	5394	5420
65°	4635	4879	4543
70°	4360	4436	3983
75°	4110	3961	3507
80°	3882	3584	3286
85°	3719	4015	3719

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9776 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.9	5.3
10°-20°	320.3	14.2
20°-30°	433.2	19.2
30°-40°	445.2	19.7
40°-50°	373.9	16.6
50°-60°	268.1	11.9
60°-70°	170.7	7.6
70°-80°	93.8	4.2
80°-90°	31.3	1.4
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°	872.4	38.7
0°-40°	1317.6	58.4
0°-60°	1959.5	86.9
0°-90°	2255.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2255.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1283	1283	1283	1283	1283	
5°	1242	1264	1259	1268	1279	116
15°	1079	1109	1132	1181	1217	302
25°	869	902	934	985	1036	398
35°	635	669	696	758	821	395
45°	391	425	474	542	589	309
55°	264	270	289	328	346	236
65°	167	177	176	166	164	166
75°	91	99	87	81	77	96
85°	28	29	30	31	28	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1283.4	1283.4	1283.4	1283.4	1283.4
2.5°	1269.1	1286.8	1274.6	1275.7	1279.0
5°	1241.5	1263.6	1259.1	1268.0	1279.0
7.5°	1207.2	1231.5	1232.6	1253.6	1271.3
10°	1169.7	1195.1	1202.8	1234.9	1256.9
12.5°	1125.5	1153.1	1169.7	1209.4	1238.2
15°	1079.1	1108.9	1132.1	1180.7	1217.2
17.5°	1028.3	1060.3	1090.2	1142.1	1179.6
20°	976.4	1010.6	1044.9	1093.5	1136.5
22.5°	922.3	957.6	993.0	1040.5	1087.9
25°	869.3	902.4	934.4	985.2	1036.0
27.5°	811.8	846.1	873.7	930.0	983.0
30°	754.4	788.6	815.1	873.7	928.9
32.5°	694.7	730.1	754.4	815.1	872.6
35°	635.1	669.3	695.8	757.7	820.7
37.5°	572.1	609.7	636.2	705.8	767.6
40°	512.5	547.8	579.9	652.8	711.3
42.5°	450.6	487.1	523.5	598.6	652.8
45°	391.0	425.2	473.8	542.3	588.7
47.5°	347.9	370.0	426.3	483.8	528.0
50°	319.2	328.0	380.0	430.8	467.2
52.5°	290.5	297.1	332.5	378.8	406.5
55°	264.0	269.5	289.4	328.0	345.7
57.5°	235.3	240.8	257.4	279.4	289.4
60°	212.1	216.5	229.7	233.1	230.8
62.5°	188.9	195.5	202.1	194.4	191.1
65°	166.8	176.7	175.6	165.7	163.5
67.5°	146.9	156.8	151.3	141.4	138.1
70°	127.0	137.0	129.2	119.3	116.0
72.5°	108.2	119.3	107.1	98.3	96.1
75°	90.6	99.4	87.3	80.6	77.3
77.5°	74.0	80.6	69.6	64.1	61.9
80°	57.4	61.9	53.0	49.7	48.6
82.5°	42.0	44.2	38.7	40.9	39.8
85°	27.6	28.7	29.8	30.9	27.6
87.5°	13.3	18.8	18.8	17.7	14.4
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	16.61	18.07	16.98	18.39	18.70	17.68	19.14	18.04	19.46	19.77
	3H	18.31	19.62	18.69	19.95	20.31	18.76	20.07	19.14	20.40	20.77
	4H	18.96	20.19	19.36	20.54	20.92	19.17	20.39	19.57	20.74	21.12
	6H	19.46	20.60	19.88	20.97	21.36	19.48	20.61	19.89	20.98	21.37
	8H	19.64	20.72	20.06	21.11	21.51	19.61	20.69	20.04	21.08	21.48
	12H	19.76	20.79	20.19	21.18	21.61	19.73	20.76	20.16	21.15	21.57
4H	2H	17.21	18.44	17.61	18.79	19.17	18.08	19.31	18.48	19.66	20.04
	3H	19.14	20.16	19.55	20.56	20.96	19.40	20.42	19.81	20.82	21.22
	4H	19.95	20.87	20.38	21.28	21.72	19.92	20.84	20.35	21.25	21.69
	6H	20.60	21.39	21.06	21.84	22.30	20.35	21.15	20.81	21.59	22.05
	8H	20.82	21.57	21.29	22.01	22.48	20.54	21.29	21.01	21.73	22.20
	12H	20.99	21.66	21.48	22.14	22.61	20.73	21.39	21.21	21.87	22.34
8H	4H	20.19	20.93	20.65	21.38	21.85	20.17	20.91	20.63	21.35	21.82
	6H	20.98	21.59	21.47	22.08	22.56	20.71	21.33	21.21	21.82	22.30
	8H	21.29	21.84	21.80	22.35	22.84	20.99	21.54	21.51	22.05	22.54
	12H	21.56	22.05	22.07	22.54	23.11	21.28	21.77	21.79	22.26	22.83
12H	4H	20.20	20.86	20.68	21.34	21.82	20.19	20.86	20.67	21.34	21.81
	6H	21.01	21.56	21.53	22.07	22.56	20.77	21.32	21.28	21.83	22.32
	8H	21.39	21.88	21.90	22.37	22.93	21.11	21.60	21.62	22.09	22.66