

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: P1059127

Luminaire Tested: S123RDRP-S1165D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059127  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1165D927-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

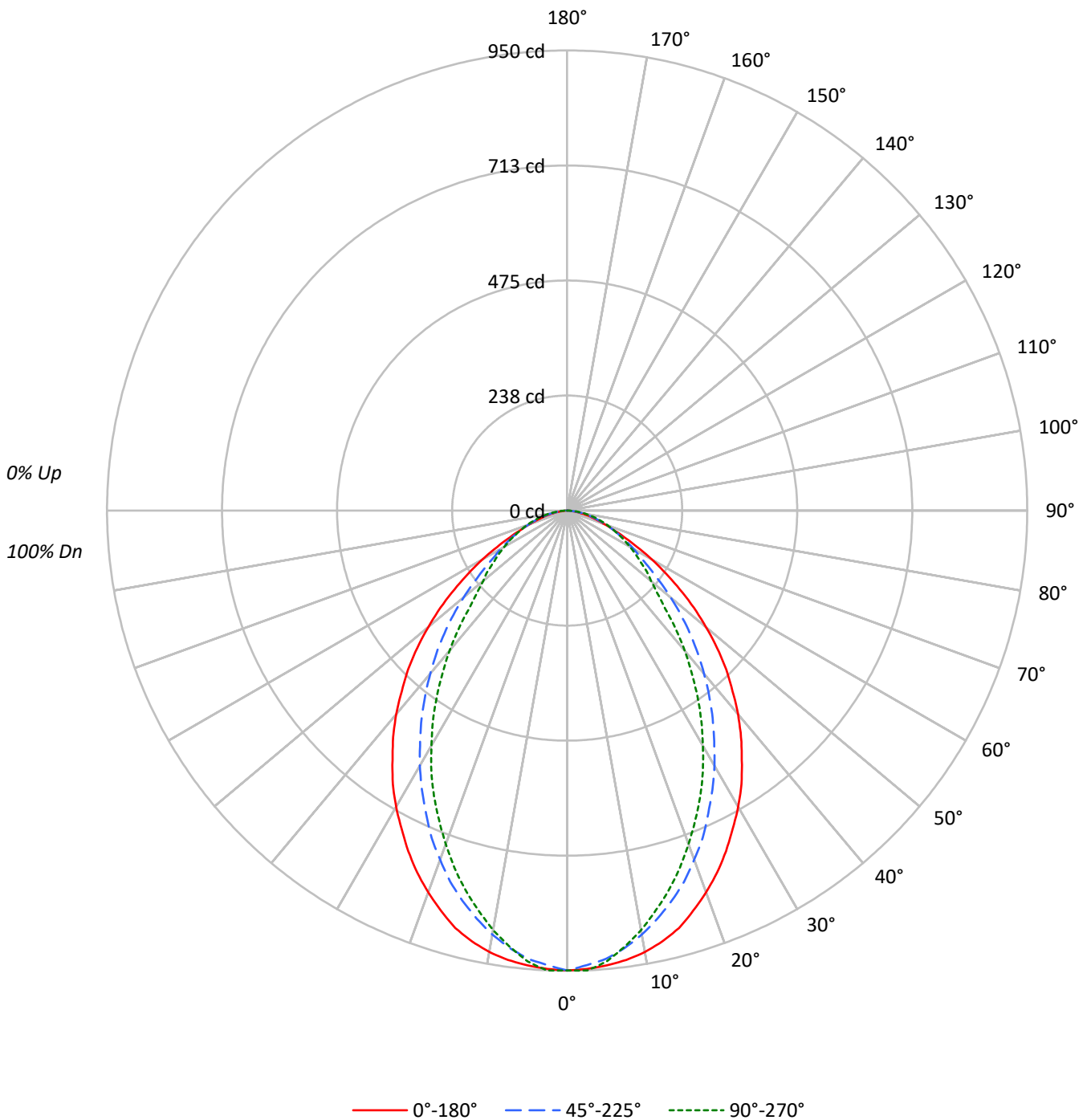
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1660.4 lumens  
Efficiency: N/A  
Efficacy: 39.7 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	11147	11147	11147
5°	11110	10948	11015
10°	11034	10599	10489
15°	10847	10140	9863
20°	10480	9582	9153
25°	10053	8930	8427
30°	9577	8247	7597
35°	9012	7507	6723
40°	8412	6734	5790
45°	7712	5950	4756
50°	6838	5108	4127
55°	5816	4275	3783
60°	4744	3725	3511
65°	3615	3298	3265
70°	2822	2939	3056
75°	2278	2640	2849
80°	1697	2157	2624
85°	916	1388	2304

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7712 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.1	5.3
10°-20°	237.1	14.3
20°-30°	322.3	19.4
30°-40°	334.1	20.1
40°-50°	281.8	17.0
50°-60°	200.0	12.0
60°-70°	122.3	7.4
70°-80°	60.8	3.7
80°-90°	13.8	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°	647.5	39.0
0°-40°	981.7	59.1
0°-60°	1463.5	88.1
0°-90°	1660.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1660.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	949	949	949	949	949	
5°	942	942	929	934	934	89
15°	892	875	834	819	811	250
25°	776	742	689	664	650	357
35°	629	581	524	487	469	393
45°	464	415	358	309	286	357
55°	284	254	209	191	185	255
65°	130	126	119	119	118	133
75°	50	54	58	60	63	54
85°	7	8	10	15	17	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	949.3	949.3	949.3	949.3	949.3
2.5°	947.1	948.2	939.1	949.3	950.5
5°	942.5	942.5	928.8	934.5	934.5
7.5°	935.7	933.4	910.6	910.6	908.3
10°	925.4	918.5	888.9	883.2	879.7
12.5°	910.6	899.1	862.6	852.4	845.5
15°	892.3	875.2	834.1	819.3	811.3
17.5°	866.1	848.9	803.3	782.8	773.6
20°	838.7	813.6	766.8	746.2	732.5
22.5°	809.0	777.0	731.4	706.3	691.5
25°	775.9	741.7	689.2	664.1	650.4
27.5°	740.5	702.9	649.3	620.7	607.0
30°	706.3	662.9	608.2	576.2	560.3
32.5°	669.8	620.7	564.8	531.7	515.8
35°	628.7	580.8	523.7	487.2	469.0
37.5°	589.9	540.9	481.5	442.7	422.2
40°	548.8	499.8	439.3	399.4	377.7
42.5°	505.5	458.7	399.4	352.6	332.0
45°	464.4	415.3	358.3	309.2	286.4
47.5°	419.9	374.3	318.4	268.1	252.2
50°	374.3	332.0	279.6	233.9	225.9
52.5°	329.8	294.4	240.8	211.1	207.7
55°	284.1	254.5	208.8	190.6	184.8
57.5°	241.9	220.2	179.1	170.0	167.7
60°	202.0	183.7	158.6	152.9	149.5
62.5°	163.2	152.9	138.1	135.8	133.5
65°	130.1	125.5	118.7	118.7	117.5
67.5°	102.7	102.7	101.6	103.8	102.7
70°	82.2	83.3	85.6	87.9	89.0
72.5°	65.0	68.5	70.7	74.2	75.3
75°	50.2	53.6	58.2	60.5	62.8
77.5°	36.5	39.9	44.5	47.9	50.2
80°	25.1	27.4	31.9	36.5	38.8
82.5°	16.0	17.1	20.5	25.1	27.4
85°	6.8	8.0	10.3	14.8	17.1
87.5°	0.0	0.0	1.1	4.6	8.0
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	17.19	18.64	17.55	18.95	19.26	15.28	16.73	15.65	17.05	17.36
	3H	18.08	19.38	18.46	19.71	20.07	16.86	18.15	17.23	18.48	18.84
	4H	18.37	19.58	18.77	19.93	20.31	17.45	18.66	17.85	19.01	19.39
	6H	18.52	19.63	18.93	20.00	20.39	17.90	19.02	18.32	19.39	19.78
	8H	18.54	19.60	18.97	19.99	20.39	18.05	19.11	18.48	19.50	19.91
	12H	18.53	19.55	18.96	19.93	20.36	18.15	19.17	18.58	19.55	19.98
4H	2H	17.43	18.64	17.83	18.99	19.37	15.82	17.04	16.23	17.39	17.77
	3H	18.54	19.54	18.96	19.95	20.35	17.60	18.60	18.01	19.00	19.40
	4H	18.93	19.83	19.37	20.25	20.69	18.31	19.21	18.74	19.63	20.07
	6H	19.17	19.95	19.63	20.40	20.86	18.88	19.66	19.34	20.10	20.57
	8H	19.22	19.95	19.68	20.39	20.86	19.07	19.80	19.54	20.25	20.71
	12H	19.23	19.87	19.71	20.35	20.83	19.21	19.86	19.70	20.34	20.81
8H	4H	19.09	19.82	19.56	20.26	20.73	18.52	19.25	18.99	19.69	20.16
	6H	19.40	20.00	19.90	20.50	20.97	19.20	19.79	19.69	20.29	20.77
	8H	19.48	20.02	20.00	20.53	21.02	19.45	19.99	19.97	20.50	20.99
	12H	19.51	19.99	20.03	20.48	21.05	19.66	20.13	20.17	20.63	21.20
12H	4H	19.10	19.74	19.58	20.22	20.69	18.52	19.16	19.00	19.65	20.12
	6H	19.42	19.96	19.93	20.47	20.96	19.20	19.74	19.72	20.25	20.74
	8H	19.53	20.01	20.04	20.50	21.07	19.51	19.98	20.02	20.47	21.04