

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: P1059127

Luminaire Tested: S123RDR-S1165D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
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: S123RDR-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: -

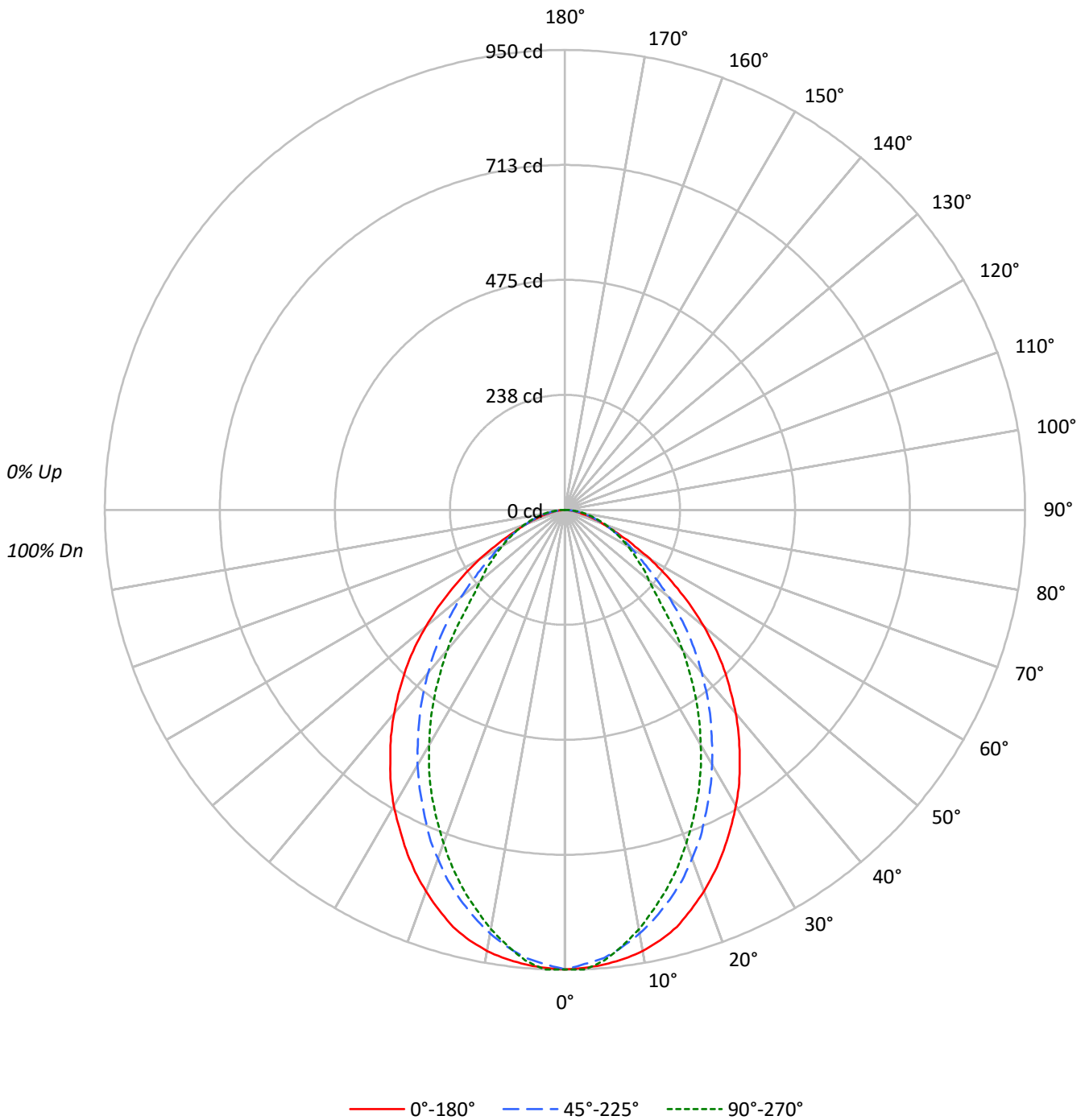
**Summary**

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 (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	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

(END OF REPORT)