

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: P1059150

Luminaire Tested: S123RDR-S1165D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059150  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D940-X4F0-XX-UDD-BVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

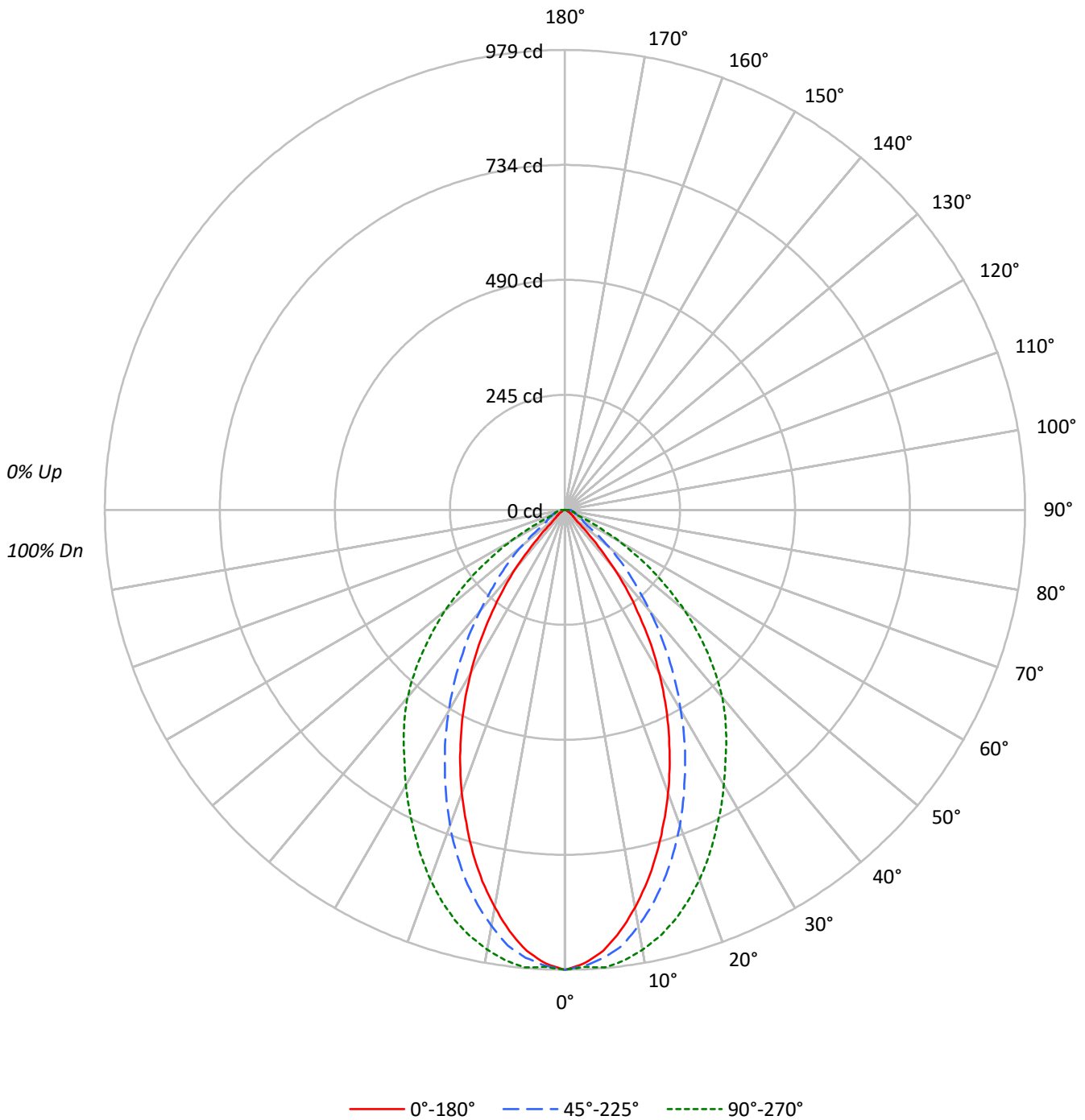
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1175.3 lumens  
Efficiency: N/A  
Efficacy: 28.1 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
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			100	
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90	
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81			81	
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73			73	
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66			66	
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60			60	
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55			55	
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50			50	
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47			47	
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43			43	
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40			40	

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

	0°	45°	90°
0°	11496	11496	11496
5°	11099	11282	11524
10°	10246	10722	11336
15°	9195	9915	10993
20°	8021	8937	10464
25°	6767	7833	9817
30°	5443	6698	9174
35°	3984	5513	8575
40°	2485	4298	7986
45°	940	3205	7114
50°	446	2209	6063
55°	342	1212	4688
60°	242	1026	3081
65°	178	895	1286
70°	175	838	838
75°	231	876	876
80°	345	1041	960
85°	687	1738	1388

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7114 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.9	7.6
10°-20°	230.4	19.6
20°-30°	285.2	24.3
30°-40°	255.7	21.8
40°-50°	167.7	14.3
50°-60°	83.9	7.1
60°-70°	32.7	2.8
70°-80°	18.4	1.6
80°-90°	11.4	1.0
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°	605.5	51.5
0°-40°	861.2	73.3
0°-60°	1112.8	94.7
0°-90°	1175.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1175.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	979	979	979	979	979	
5°	942	957	957	967	978	87
15°	756	787	816	870	904	211
25°	522	554	605	691	758	238
35°	278	315	385	500	598	173
45°	57	91	193	331	428	54
55°	17	21	59	162	229	15
65°	6	19	32	42	46	7
75°	5	19	19	19	19	5
85°	5	13	13	13	10	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	979.0	979.0	979.0	979.0	979.0
2.5°	966.1	980.2	971.2	972.5	973.8
5°	941.6	957.1	957.1	967.4	977.7
7.5°	904.3	922.4	935.2	953.2	967.4
10°	859.3	881.2	899.2	931.4	950.7
12.5°	810.4	837.4	860.6	903.1	930.1
15°	756.4	787.3	815.6	869.6	904.3
17.5°	698.5	729.4	766.7	829.7	872.2
20°	641.9	672.8	715.2	786.0	837.4
22.5°	582.7	614.9	659.9	738.4	798.9
25°	522.3	554.4	604.6	690.8	757.7
27.5°	461.8	494.0	550.6	644.5	717.8
30°	401.4	433.5	494.0	594.3	676.6
32.5°	340.9	375.6	438.7	548.0	635.5
35°	277.9	315.2	384.6	500.4	598.2
37.5°	220.0	254.7	333.2	459.2	560.9
40°	162.1	199.4	280.4	419.4	521.0
42.5°	105.5	145.4	232.8	375.6	476.0
45°	56.6	91.3	193.0	330.6	428.4
47.5°	30.9	50.2	155.7	283.0	379.5
50°	24.4	28.3	120.9	241.8	331.9
52.5°	20.6	23.2	86.2	203.3	279.1
55°	16.7	20.6	59.2	162.1	229.0
57.5°	14.2	18.0	46.3	126.1	178.8
60°	10.3	15.4	43.7	92.6	131.2
62.5°	7.7	16.7	38.6	64.3	86.2
65°	6.4	19.3	32.2	42.5	46.3
67.5°	5.1	20.6	28.3	27.0	27.0
70°	5.1	19.3	24.4	23.2	24.4
72.5°	5.1	20.6	21.9	20.6	21.9
75°	5.1	19.3	19.3	19.3	19.3
77.5°	5.1	18.0	18.0	16.7	16.7
80°	5.1	15.4	15.4	15.4	14.2
82.5°	5.1	14.2	14.2	14.2	11.6
85°	5.1	12.9	12.9	12.9	10.3
87.5°	3.9	11.6	12.9	11.6	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)