

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: P1059165

Luminaire Tested: S123RDR-S1165D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059165
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: S123RDR-S1165D950-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

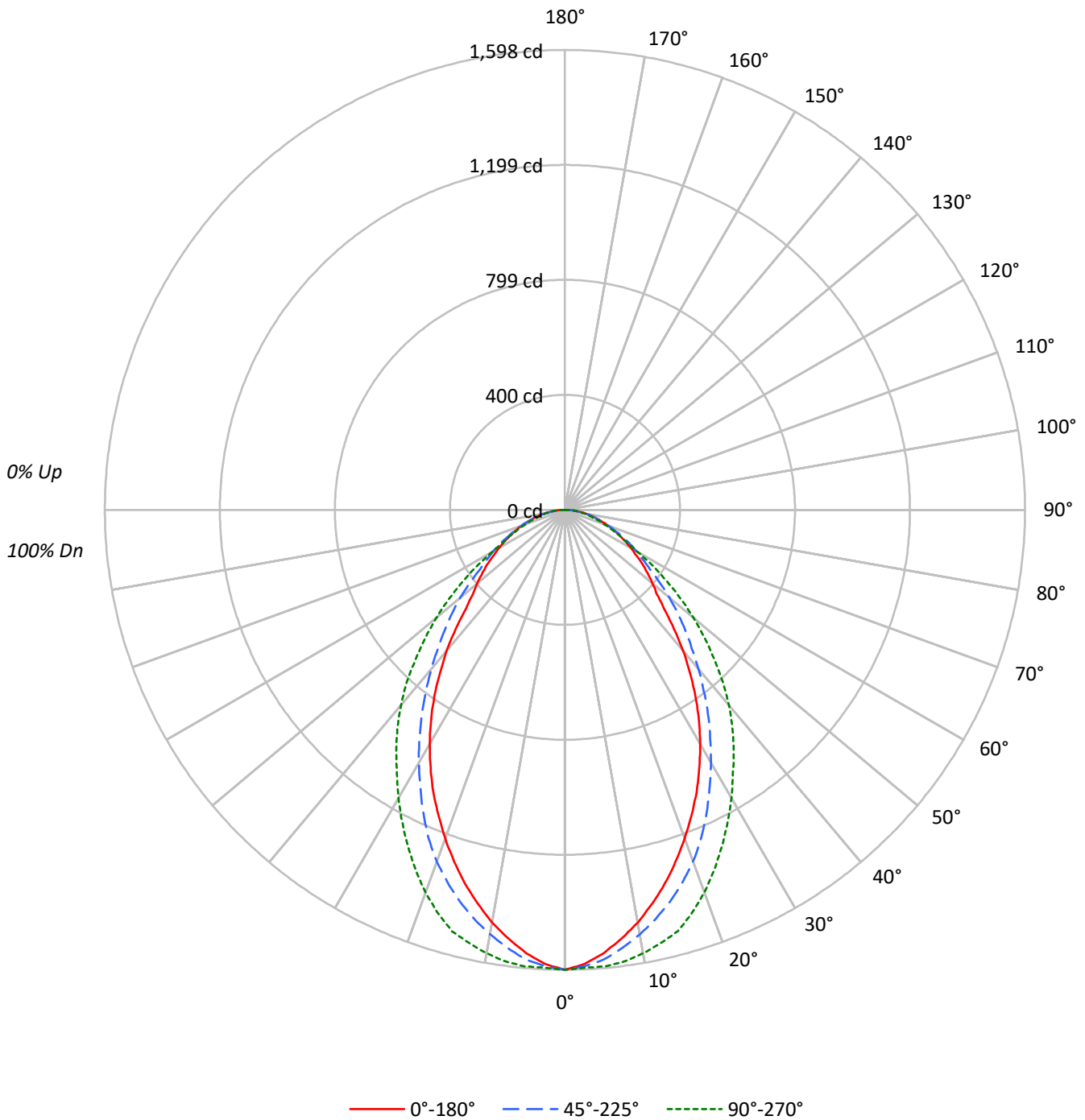
Lumens per Lamp: N/A
Luminaire Lumens: 2807.7 lumens
Efficiency: N/A
Efficacy: 67.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P1059165

CATALOG NUMBER: S123RDR-S1165D950-X4F0-XX-UDD-WVL-W

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
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	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°	18762	18762	18762
5°	18218	18478	18769
10°	17363	17854	18658
15°	16331	17134	18421
20°	15190	16255	17681
25°	14021	15072	16711
30°	12735	13760	15680
35°	11335	12418	14646
40°	9780	11066	13574
45°	8084	9796	12171
50°	7260	8641	10626
55°	6727	7376	8811
60°	6200	6717	6750
65°	5768	6074	5654
70°	5428	5524	4958
75°	5118	4927	4369
80°	4835	4463	4091
85°	4635	4998	4635

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12171 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.0	5.3
10°-20°	398.7	14.2
20°-30°	539.4	19.2
30°-40°	554.3	19.7
40°-50°	465.5	16.6
50°-60°	333.7	11.9
60°-70°	212.5	7.6
70°-80°	116.8	4.2
80°-90°	38.9	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°	1086.0	38.7
0°-40°	1640.3	58.4
0°-60°	2439.5	86.9
0°-90°	2807.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2807.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1598	1598	1598	1598	1598	
5°	1546	1573	1568	1579	1592	145
15°	1343	1381	1409	1470	1515	376
25°	1082	1123	1163	1227	1290	496
35°	791	833	866	943	1022	492
45°	487	529	590	675	733	384
55°	329	336	360	408	430	294
65°	208	220	219	206	204	207
75°	113	124	109	100	96	120
85°	34	36	37	38	34	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1597.8	1597.8	1597.8	1597.8	1597.8
2.5°	1579.9	1601.9	1586.8	1588.2	1592.3
5°	1545.6	1573.1	1567.6	1578.6	1592.3
7.5°	1502.9	1533.2	1534.6	1560.7	1582.7
10°	1456.2	1487.8	1497.4	1537.3	1564.8
12.5°	1401.2	1435.6	1456.2	1505.7	1541.4
15°	1343.4	1380.6	1409.4	1469.9	1515.3
17.5°	1280.2	1320.1	1357.2	1421.8	1468.6
20°	1215.6	1258.2	1300.8	1361.3	1414.9
22.5°	1148.2	1192.2	1236.2	1295.3	1354.4
25°	1082.2	1123.4	1163.3	1226.6	1289.8
27.5°	1010.7	1053.3	1087.7	1157.8	1223.8
30°	939.2	981.8	1014.8	1087.7	1156.4
32.5°	864.9	908.9	939.2	1014.8	1086.3
35°	790.7	833.3	866.3	943.3	1021.7
37.5°	712.3	759.0	792.0	878.7	955.7
40°	638.0	682.0	721.9	812.7	885.5
42.5°	561.0	606.4	651.8	745.3	812.7
45°	486.8	529.4	589.9	675.2	732.9
47.5°	433.1	460.6	530.8	602.3	657.3
50°	397.4	408.4	473.0	536.3	581.7
52.5°	361.6	369.9	413.9	471.6	506.0
55°	328.6	335.5	360.3	408.4	430.4
57.5°	292.9	299.8	320.4	347.9	360.3
60°	264.0	269.5	286.0	290.1	287.4
62.5°	235.1	243.4	251.6	242.0	237.9
65°	207.6	220.0	218.6	206.3	203.5
67.5°	182.9	195.3	188.4	176.0	171.9
70°	158.1	170.5	160.9	148.5	144.4
72.5°	134.8	148.5	133.4	122.4	119.6
75°	112.8	123.8	108.6	100.4	96.3
77.5°	92.1	100.4	86.6	79.8	77.0
80°	71.5	77.0	66.0	61.9	60.5
82.5°	52.3	55.0	48.1	50.9	49.5
85°	34.4	35.8	37.1	38.5	34.4
87.5°	16.5	23.4	23.4	22.0	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)