

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: P1059159

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059159
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-S1165D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

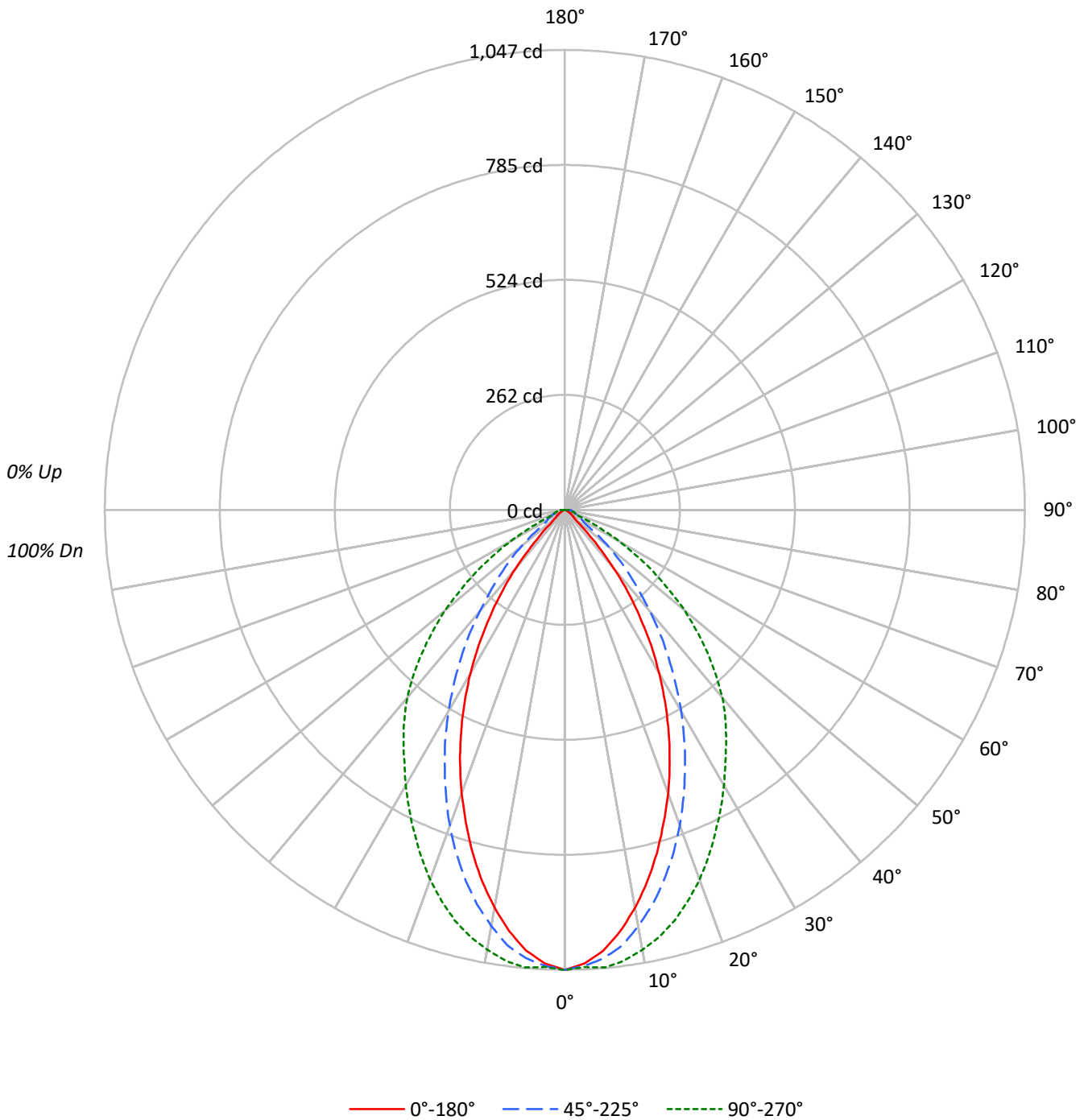
Lumens per Lamp: N/A
Luminaire Lumens: 1257.4 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12298	12298	12298
5°	11875	12069	12330
10°	10961	11470	12127
15°	9837	10608	11762
20°	8582	9562	11195
25°	7240	8380	10502
30°	5822	7166	9815
35°	4262	5899	9174
40°	2658	4599	8544
45°	1006	3428	7611
50°	477	2364	6487
55°	366	1296	5016
60°	258	1099	3297
65°	192	956	1375
70°	189	896	896
75°	250	935	935
80°	372	1116	1021
85°	741	1859	1482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7611 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.1	7.6
10°-20°	246.5	19.6
20°-30°	305.2	24.3
30°-40°	273.6	21.8
40°-50°	179.4	14.3
50°-60°	89.8	7.1
60°-70°	35.0	2.8
70°-80°	19.7	1.6
80°-90°	12.2	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°	647.8	51.5
0°-40°	921.4	73.3
0°-60°	1190.6	94.7
0°-90°	1257.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1257.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1047	1047	1047	1047	1047	
5°	1007	1024	1024	1035	1046	93
15°	809	842	873	930	968	225
25°	559	593	647	739	811	255
35°	297	337	412	535	640	185
45°	61	98	206	354	458	58
55°	18	22	63	173	245	16
65°	7	21	34	45	50	7
75°	6	21	21	21	21	6
85°	6	14	14	14	11	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1047.3	1047.3	1047.3	1047.3	1047.3
2.5°	1033.6	1048.7	1039.1	1040.5	1041.8
5°	1007.4	1023.9	1023.9	1035.0	1046.0
7.5°	967.5	986.8	1000.5	1019.8	1035.0
10°	919.3	942.7	962.0	996.4	1017.1
12.5°	867.0	895.9	920.7	966.1	995.0
15°	809.2	842.3	872.6	930.4	967.5
17.5°	747.3	780.3	820.3	887.7	933.1
20°	686.8	719.8	765.2	840.9	895.9
22.5°	623.4	657.9	706.0	790.0	854.7
25°	558.8	593.2	646.8	739.1	810.6
27.5°	494.1	528.5	589.0	689.5	768.0
30°	429.4	463.8	528.5	635.8	723.9
32.5°	364.7	401.9	469.3	586.3	679.9
35°	297.3	337.2	411.5	535.4	640.0
37.5°	235.3	272.5	356.5	491.3	600.1
40°	173.4	213.3	300.0	448.7	557.4
42.5°	112.9	155.5	249.1	401.9	509.2
45°	60.6	97.7	206.4	353.7	458.3
47.5°	33.0	53.7	166.5	302.8	406.0
50°	26.1	30.3	129.4	258.7	355.1
52.5°	22.0	24.8	92.2	217.4	298.6
55°	17.9	22.0	63.3	173.4	245.0
57.5°	15.1	19.3	49.5	134.9	191.3
60°	11.0	16.5	46.8	99.1	140.4
62.5°	8.3	17.9	41.3	68.8	92.2
65°	6.9	20.6	34.4	45.4	49.5
67.5°	5.5	22.0	30.3	28.9	28.9
70°	5.5	20.6	26.1	24.8	26.1
72.5°	5.5	22.0	23.4	22.0	23.4
75°	5.5	20.6	20.6	20.6	20.6
77.5°	5.5	19.3	19.3	17.9	17.9
80°	5.5	16.5	16.5	16.5	15.1
82.5°	5.5	15.1	15.1	15.1	12.4
85°	5.5	13.8	13.8	13.8	11.0
87.5°	4.1	12.4	13.8	12.4	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)