

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: P1059164

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059164
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
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-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

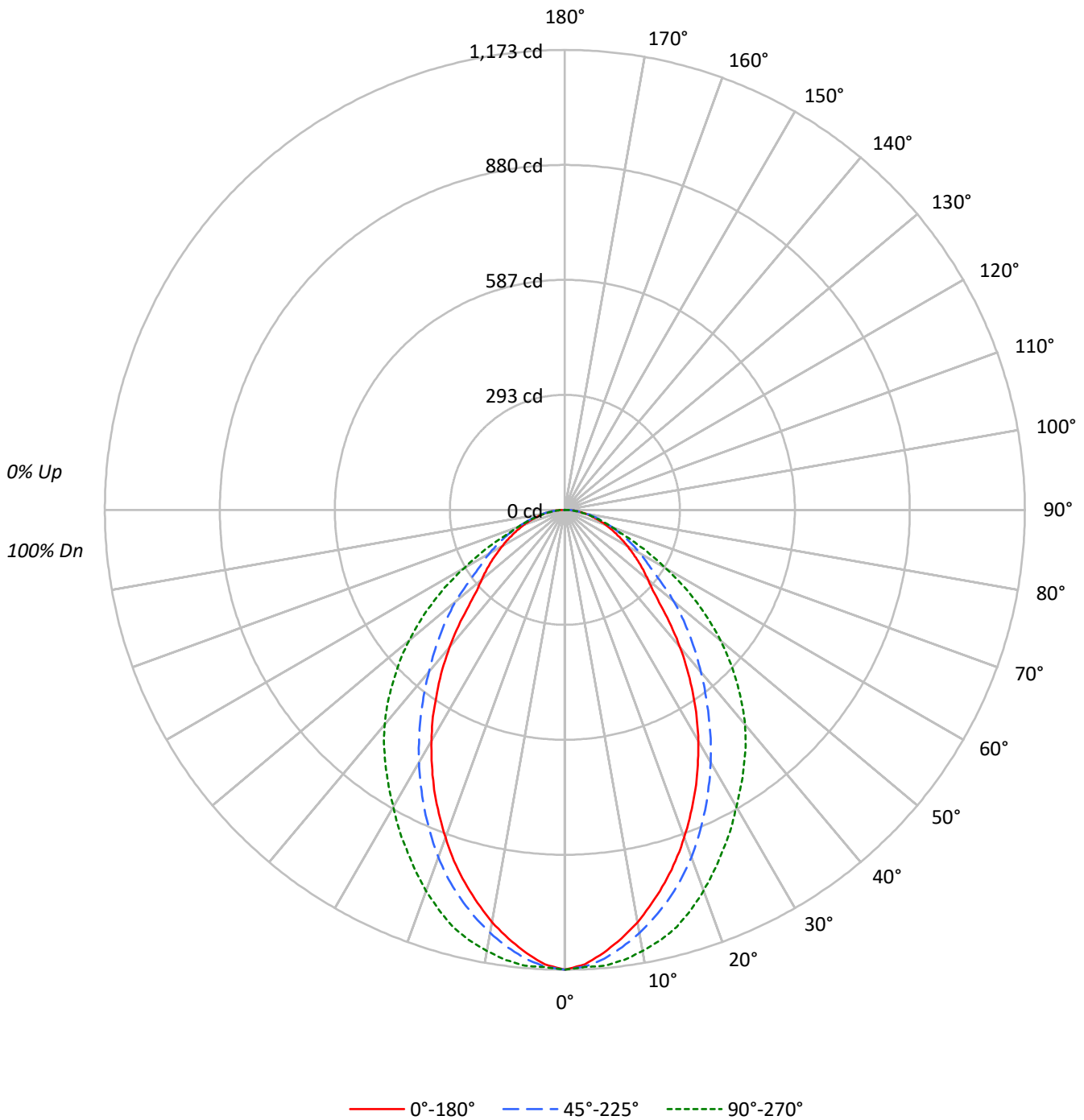
Lumens per Lamp: N/A
Luminaire Lumens: 2118.5 lumens
Efficiency: N/A
Efficacy: 50.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13772	13772	13772
5°	13370	13549	13759
10°	12738	13066	13624
15°	11968	12486	13388
20°	11116	11786	12921
25°	10207	10956	12381
30°	9228	10087	11857
35°	8141	9166	11412
40°	6998	8262	10960
45°	5754	7443	10274
50°	5049	6631	9470
55°	4672	5659	8388
60°	4295	5200	6942
65°	4012	4776	5463
70°	3777	4343	4343
75°	3557	3992	3743
80°	3347	3625	3158
85°	3153	3516	2412

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10274 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.5	5.1
10°-20°	290.7	13.7
20°-30°	394.2	18.6
30°-40°	412.1	19.5
40°-50°	357.4	16.9
50°-60°	265.9	12.6
60°-70°	170.6	8.1
70°-80°	91.5	4.3
80°-90°	27.6	1.3
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°	793.4	37.4
0°-40°	1205.5	56.9
0°-60°	1828.8	86.3
0°-90°	2118.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2118.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1173	1173	1173	1173	1173	
5°	1134	1154	1150	1158	1167	106
15°	984	1008	1027	1068	1101	276
25°	788	813	846	902	956	361
35°	568	595	639	720	796	355
45°	346	373	448	544	619	273
55°	228	234	276	355	410	204
65°	144	157	172	183	197	144
75°	78	91	88	84	82	83
85°	23	29	26	22	18	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1172.8	1172.8	1172.8	1172.8	1172.8
2.5°	1160.5	1177.0	1166.0	1166.0	1167.3
5°	1134.3	1153.6	1149.5	1157.7	1167.3
7.5°	1102.7	1123.3	1124.7	1144.0	1157.7
10°	1068.3	1089.0	1095.8	1123.3	1142.6
12.5°	1027.1	1050.5	1062.8	1097.2	1124.7
15°	984.5	1007.8	1027.1	1068.3	1101.3
17.5°	939.1	962.5	987.2	1034.0	1069.7
20°	889.6	914.3	943.2	990.0	1034.0
22.5°	838.7	864.8	895.1	946.0	995.5
25°	787.8	812.6	845.6	902.0	955.6
27.5°	734.2	760.4	794.7	856.6	917.1
30°	680.6	706.7	743.9	809.8	874.5
32.5°	625.6	651.7	691.6	765.9	836.0
35°	567.9	595.4	639.4	720.5	796.1
37.5°	512.9	539.0	588.5	677.9	757.6
40°	456.5	484.0	539.0	635.2	715.0
42.5°	401.5	429.0	493.6	589.9	668.2
45°	346.5	372.6	448.2	544.5	618.7
47.5°	303.9	323.1	405.6	496.4	570.6
50°	276.4	283.2	363.0	449.6	518.4
52.5°	251.6	257.1	316.2	402.9	464.7
55°	228.2	233.7	276.4	354.7	409.7
57.5°	204.9	211.7	246.1	305.2	354.7
60°	182.9	191.1	221.4	261.2	295.6
62.5°	163.6	173.2	196.6	221.4	244.7
65°	144.4	156.7	171.9	182.9	196.6
67.5°	126.5	140.2	148.5	151.2	152.6
70°	110.0	123.7	126.5	126.5	126.5
72.5°	93.5	108.6	105.9	104.5	103.1
75°	78.4	90.7	88.0	83.9	82.5
77.5°	63.2	74.2	70.1	67.4	63.2
80°	49.5	57.7	53.6	50.9	46.7
82.5°	37.1	42.6	38.5	35.7	31.6
85°	23.4	28.9	26.1	22.0	17.9
87.5°	12.4	16.5	13.7	12.4	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)