

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: P1055600

Luminaire Tested: S123R3DR-S1165D950-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055600
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S1165D950-X4F0-XX-UDD-FLL-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

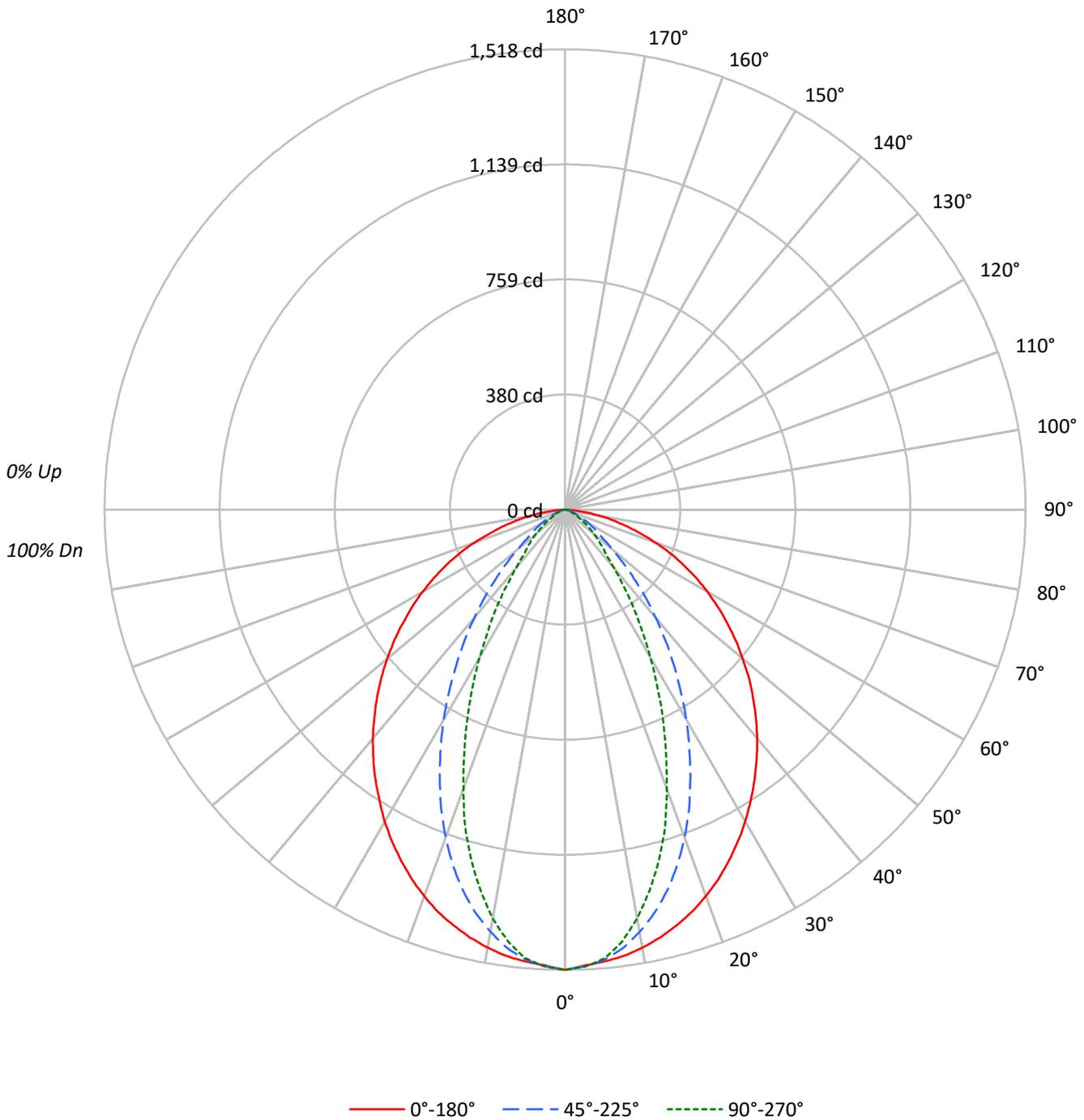
Lumens per Lamp: N/A
Luminaire Lumens: 2110.9 lumens
Efficiency: N/A
Efficacy: 50.4 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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: P1055600

CATALOG NUMBER: S123R3DR-S1165D950-X4F0-XX-UDD-FLL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1055600

CATALOG NUMBER: S123R3DR-S1165D950-X4F0-XX-UDD-FLL-S

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89															
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79					79															
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70					70															
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62					62															
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56					56															
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51					51															
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46					46															
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42					42															
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39					39															
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36					36															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18300	18300	18300
5°	18109	18040	17988
10°	17967	17314	16768
15°	17725	16235	14923
20°	17408	14768	12571
25°	16996	12995	10145
30°	16544	11137	7811
35°	16031	9190	5781
40°	15512	7314	3939
45°	14940	5470	2968
50°	14330	3806	2320
55°	13701	2783	1694
60°	13045	2081	1215
65°	12273	1395	944
70°	11107	1015	761
75°	9582	736	601
80°	7693	597	500
85°	3984	595	401

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14940 cd/sqm



TEST NUMBER: P1055600

CATALOG NUMBER: S123R3DR-S1165D950-X4F0-XX-UDD-FLL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.3	6.6
10°-20°	365.2	17.3
20°-30°	458.9	21.7
30°-40°	427.4	20.2
40°-50°	327.2	15.5
50°-60°	217.5	10.3
60°-70°	117.2	5.6
70°-80°	48.0	2.3
80°-90°	9.2	0.4
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°	964.4	45.7
0°-40°	1391.8	65.9
0°-60°	1936.5	91.7
0°-90°	2110.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2110.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1518	1518	1518	1518	1518	
5°	1496	1512	1491	1485	1486	142
15°	1420	1397	1301	1224	1196	400
25°	1278	1191	977	814	763	588
35°	1089	928	624	442	393	681
45°	876	647	321	188	174	676
55°	652	377	132	92	81	584
65°	430	145	49	36	33	425
75°	206	34	16	14	13	220
85°	29	4	4	4	3	42
90°	0	0	0	0	0	



TEST NUMBER: P1055600

CATALOG NUMBER: S123R3DR-S1165D950-X4F0-XX-UDD-FLL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1517.9	1517.9	1517.9	1517.9	1517.9
2.5°	1505.0	1523.7	1507.8	1509.3	1509.3
5°	1496.3	1512.2	1490.6	1484.8	1486.3
7.5°	1484.8	1494.9	1458.9	1440.2	1437.3
10°	1467.6	1470.4	1414.3	1381.2	1369.7
12.5°	1446.0	1435.9	1362.5	1307.8	1286.3
15°	1420.1	1397.1	1300.7	1224.4	1195.6
17.5°	1391.3	1352.4	1230.2	1130.9	1096.3
20°	1356.8	1302.1	1151.0	1027.3	979.8
22.5°	1319.4	1248.9	1067.6	920.8	867.6
25°	1277.6	1191.3	976.9	814.3	762.6
27.5°	1234.5	1129.4	887.7	713.6	660.4
30°	1188.4	1066.1	800.0	615.8	561.1
32.5°	1138.1	997.1	709.3	525.2	470.5
35°	1089.2	928.0	624.4	441.7	392.8
37.5°	1037.4	858.9	542.4	368.3	313.7
40°	985.6	788.4	464.7	296.4	250.3
42.5°	930.9	717.9	391.3	236.0	200.0
45°	876.2	647.4	320.8	188.5	174.1
47.5°	821.5	576.9	259.0	162.6	148.2
50°	764.0	509.3	202.9	138.1	123.7
52.5°	709.3	441.7	158.3	113.7	100.7
55°	651.8	377.0	132.4	92.1	80.6
57.5°	598.5	310.8	109.3	71.9	63.3
60°	541.0	251.8	86.3	56.1	50.4
62.5°	486.3	197.1	66.2	44.6	40.3
65°	430.2	145.3	48.9	36.0	33.1
67.5°	374.1	105.0	37.4	28.8	27.3
70°	315.1	79.1	28.8	23.0	21.6
72.5°	259.0	56.1	21.6	18.7	17.3
75°	205.7	34.5	15.8	14.4	12.9
77.5°	158.3	20.1	11.5	11.5	10.1
80°	110.8	11.5	8.6	8.6	7.2
82.5°	67.6	7.2	5.8	5.8	5.8
85°	28.8	4.3	4.3	4.3	2.9
87.5°	4.3	1.4	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)