

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: P1055597

Luminaire Tested: S123R3DR-S1165D940-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055597
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-S1165D940-X4F0-XX-UDD-FLL-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

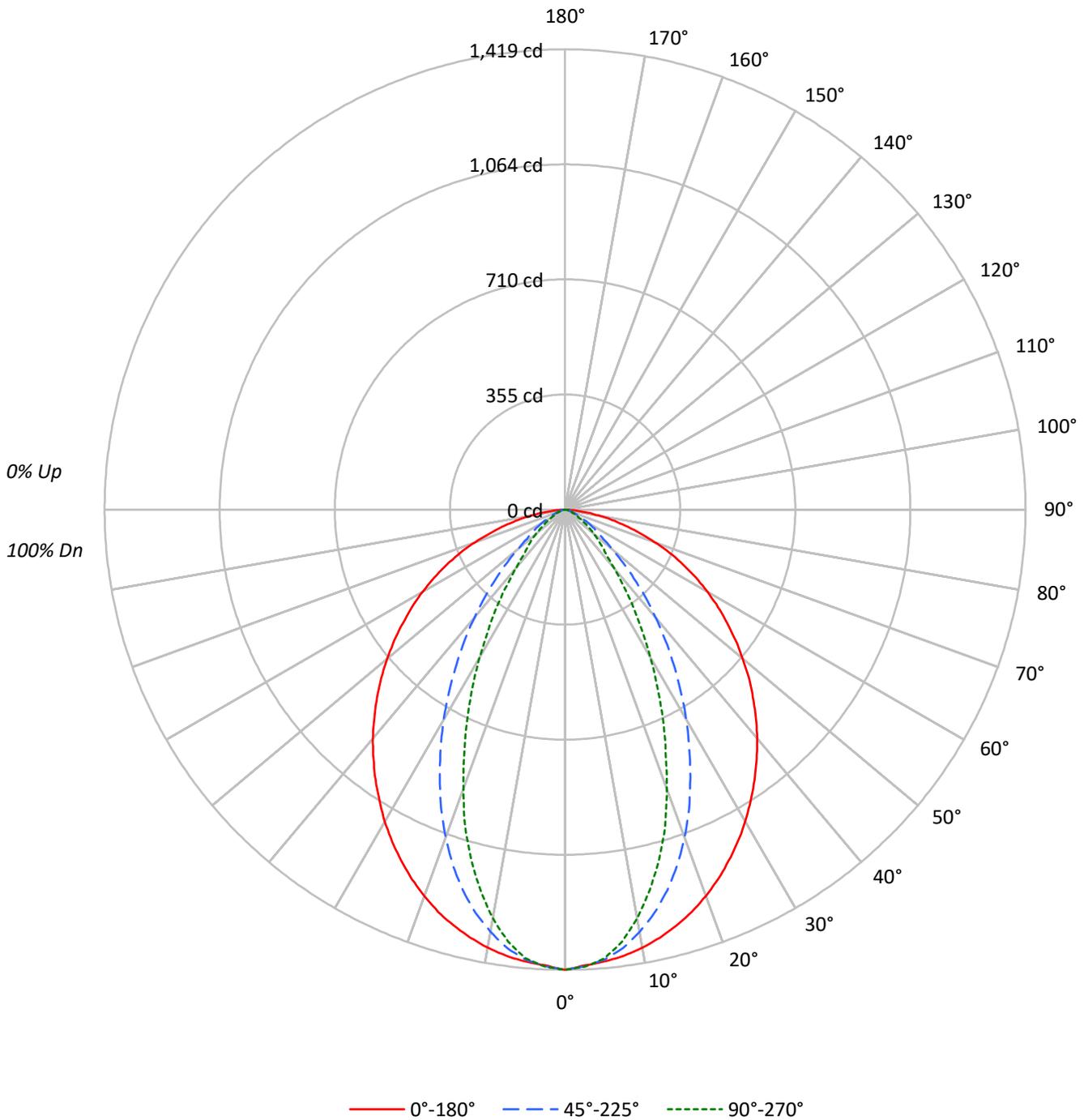
Lumens per Lamp: N/A
Luminaire Lumens: 1973.1 lumens
Efficiency: N/A
Efficacy: 47.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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: P1055597

CATALOG NUMBER: S123R3DR-S1165D940-X4F0-XX-UDD-FLL-S

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	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°	17106	17106	17106
5°	16926	16861	16813
10°	16793	16184	15674
15°	16568	15174	13950
20°	16271	13804	11750
25°	15886	12147	9482
30°	15464	10409	7302
35°	14983	8591	5403
40°	14498	6837	3683
45°	13964	5113	2774
50°	13394	3556	2170
55°	12805	2600	1583
60°	12194	1946	1136
65°	11471	1304	882
70°	10381	948	712
75°	8958	689	564
80°	7193	562	465
85°	3721	553	373

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13964 cd/sqm



TEST NUMBER: P1055597

CATALOG NUMBER: S123R3DR-S1165D940-X4F0-XX-UDD-FLL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.2	6.6
10°-20°	341.4	17.3
20°-30°	428.9	21.7
30°-40°	399.5	20.2
40°-50°	305.8	15.5
50°-60°	203.3	10.3
60°-70°	109.6	5.6
70°-80°	44.9	2.3
80°-90°	8.6	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°	901.5	45.7
0°-40°	1301.0	65.9
0°-60°	1810.1	91.7
0°-90°	1973.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1973.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1419	1419	1419	1419	1419	
5°	1399	1413	1393	1388	1389	133
15°	1327	1306	1216	1144	1118	374
25°	1194	1114	913	761	713	550
35°	1018	867	584	413	367	636
45°	819	605	300	176	163	632
55°	609	352	124	86	75	546
65°	402	136	46	34	31	397
75°	192	32	15	13	12	206
85°	27	4	4	4	3	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1418.8	1418.8	1418.8	1418.8	1418.8
2.5°	1406.7	1424.2	1409.4	1410.7	1410.7
5°	1398.6	1413.4	1393.2	1387.9	1389.2
7.5°	1387.9	1397.3	1363.7	1346.2	1343.5
10°	1371.7	1374.4	1322.0	1291.0	1280.3
12.5°	1351.6	1342.1	1273.6	1222.5	1202.3
15°	1327.4	1305.8	1215.7	1144.5	1117.6
17.5°	1300.5	1264.1	1149.8	1057.0	1024.8
20°	1268.2	1217.1	1075.9	960.2	915.8
22.5°	1233.2	1167.3	997.9	860.7	810.9
25°	1194.2	1113.5	913.1	761.2	712.8
27.5°	1153.9	1055.7	829.8	667.0	617.3
30°	1110.8	996.5	747.7	575.6	524.5
32.5°	1063.8	932.0	663.0	490.9	439.8
35°	1018.0	867.4	583.7	412.9	367.1
37.5°	969.6	802.9	507.0	344.3	293.2
40°	921.2	737.0	434.4	277.0	234.0
42.5°	870.1	671.1	365.8	220.6	186.9
45°	819.0	605.2	299.9	176.2	162.7
47.5°	767.9	539.3	242.1	152.0	138.5
50°	714.1	476.1	189.6	129.1	115.7
52.5°	663.0	412.9	147.9	106.2	94.1
55°	609.2	352.3	123.7	86.1	75.3
57.5°	559.5	290.5	102.2	67.2	59.2
60°	505.7	235.3	80.7	52.4	47.1
62.5°	454.6	184.2	61.9	41.7	37.7
65°	402.1	135.8	45.7	33.6	30.9
67.5°	349.7	98.2	35.0	26.9	25.6
70°	294.5	74.0	26.9	21.5	20.2
72.5°	242.1	52.4	20.2	17.5	16.1
75°	192.3	32.3	14.8	13.4	12.1
77.5°	147.9	18.8	10.8	10.8	9.4
80°	103.6	10.8	8.1	8.1	6.7
82.5°	63.2	6.7	5.4	5.4	5.4
85°	26.9	4.0	4.0	4.0	2.7
87.5°	4.0	1.3	1.3	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)