

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: P1055598

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055598
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)
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-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

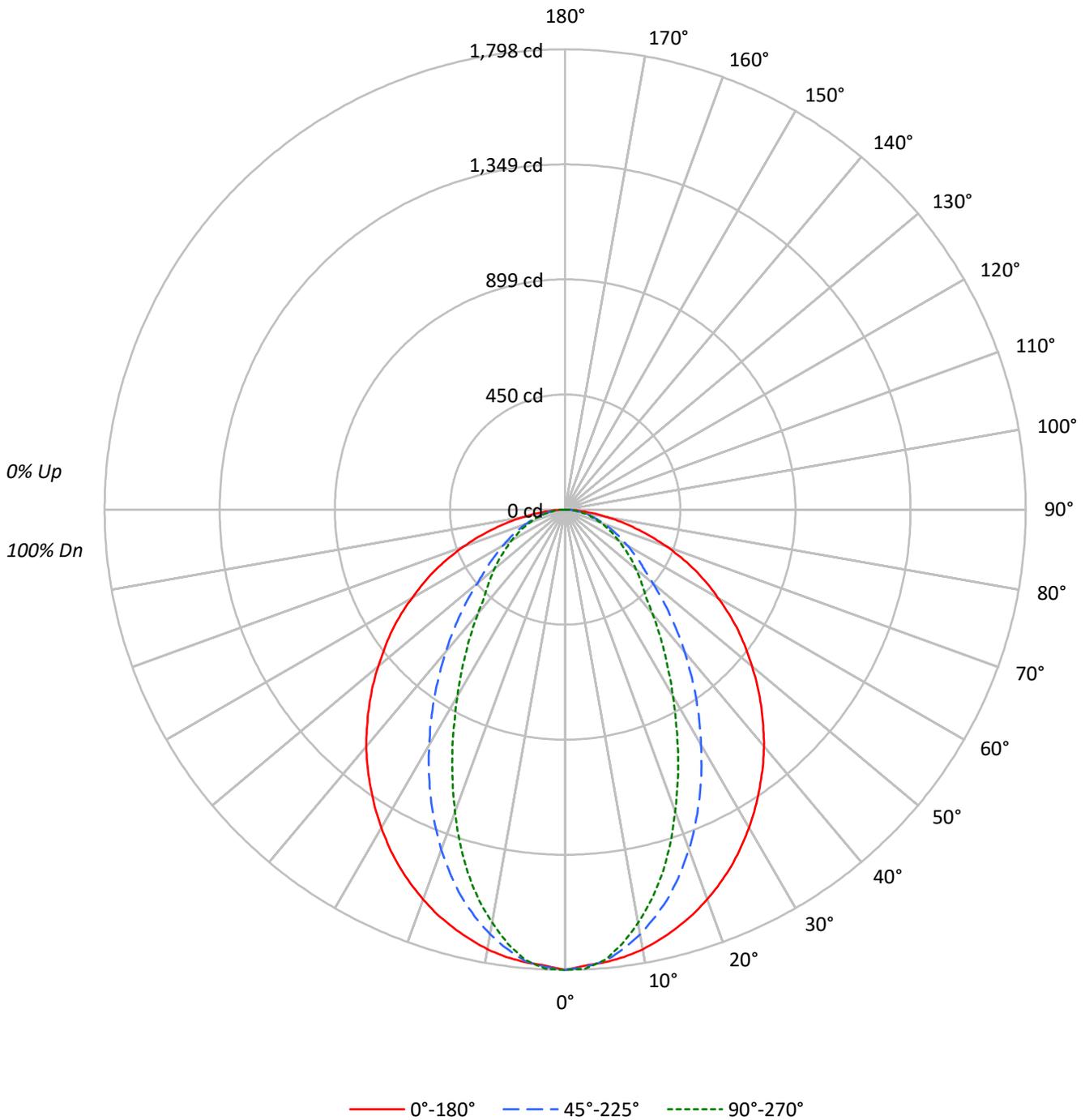
Lumens per Lamp: N/A
Luminaire Lumens: 3153.5 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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

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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				100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88				86	
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76				74	
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67				65	
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59				57	
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52				50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47				45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42				40	
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39				37	
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	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°	21677	21677	21677
5°	21484	21435	21386
10°	21354	20630	20070
15°	21100	19539	18331
20°	20791	18134	16116
25°	20430	16513	13864
30°	19976	14772	11721
35°	19497	13064	9896
40°	19007	11409	8318
45°	18435	9836	7337
50°	17858	8375	6735
55°	17329	7462	6220
60°	16604	6744	5804
65°	15921	6176	5449
70°	14837	5689	5118
75°	13281	5264	4826
80°	11393	4853	4485
85°	7996	4468	4274

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18435 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.7	5.3
10°-20°	441.0	14.0
20°-30°	580.9	18.4
30°-40°	589.6	18.7
40°-50°	512.5	16.3
50°-60°	401.5	12.7
60°-70°	272.8	8.7
70°-80°	147.8	4.7
80°-90°	40.7	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°	1188.5	37.7
0°-40°	1778.1	56.4
0°-60°	2692.1	85.4
0°-90°	3153.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3153.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1798	1798	1798	1798	1798	
5°	1775	1797	1771	1755	1767	169
15°	1690	1666	1565	1489	1469	477
25°	1536	1443	1241	1087	1042	707
35°	1325	1167	888	718	672	829
45°	1081	867	577	445	430	834
55°	824	573	355	303	296	736
65°	558	309	216	194	191	551
75°	285	143	113	105	104	304
85°	58	35	32	30	31	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1798.0	1798.0	1798.0	1798.0	1798.0
2.5°	1783.3	1806.1	1788.6	1790.0	1795.4
5°	1775.2	1796.7	1771.1	1755.0	1767.1
7.5°	1763.1	1779.2	1732.1	1706.6	1710.6
10°	1744.3	1749.6	1685.1	1644.7	1639.4
12.5°	1718.7	1709.3	1628.6	1569.4	1560.0
15°	1690.5	1666.3	1565.4	1488.7	1468.6
17.5°	1658.2	1617.8	1491.4	1397.3	1366.4
20°	1620.5	1564.0	1413.4	1293.7	1256.1
22.5°	1580.2	1507.6	1328.7	1187.5	1148.5
25°	1535.8	1443.0	1241.3	1086.6	1042.2
27.5°	1487.4	1378.5	1152.5	987.1	937.3
30°	1434.9	1311.2	1061.1	890.3	841.9
32.5°	1381.1	1239.9	973.7	800.2	753.1
35°	1324.7	1167.3	887.6	718.1	672.4
37.5°	1266.8	1093.4	804.2	640.1	597.1
40°	1207.7	1018.0	724.9	567.5	528.5
42.5°	1144.5	942.7	648.2	498.9	469.3
45°	1081.2	867.4	576.9	445.1	430.3
47.5°	1018.0	790.8	509.7	407.5	394.0
50°	952.1	716.8	446.5	372.5	359.1
52.5°	887.6	644.2	394.0	338.9	329.5
55°	824.4	572.9	355.0	302.6	295.9
57.5°	758.5	503.0	316.0	274.3	266.3
60°	688.6	435.7	279.7	244.8	240.7
62.5°	625.3	372.5	247.4	219.2	215.2
65°	558.1	309.3	216.5	193.7	191.0
67.5°	489.5	256.9	188.3	169.4	168.1
70°	420.9	216.5	161.4	146.6	145.2
72.5°	353.7	178.9	135.8	126.4	123.7
75°	285.1	142.6	113.0	104.9	103.6
77.5°	223.2	110.3	90.1	84.7	83.4
80°	164.1	82.0	69.9	65.9	64.6
82.5°	107.6	56.5	49.8	47.1	47.1
85°	57.8	35.0	32.3	29.6	30.9
87.5°	20.2	14.8	14.8	13.4	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)