

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: P1055596

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055596
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)
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-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

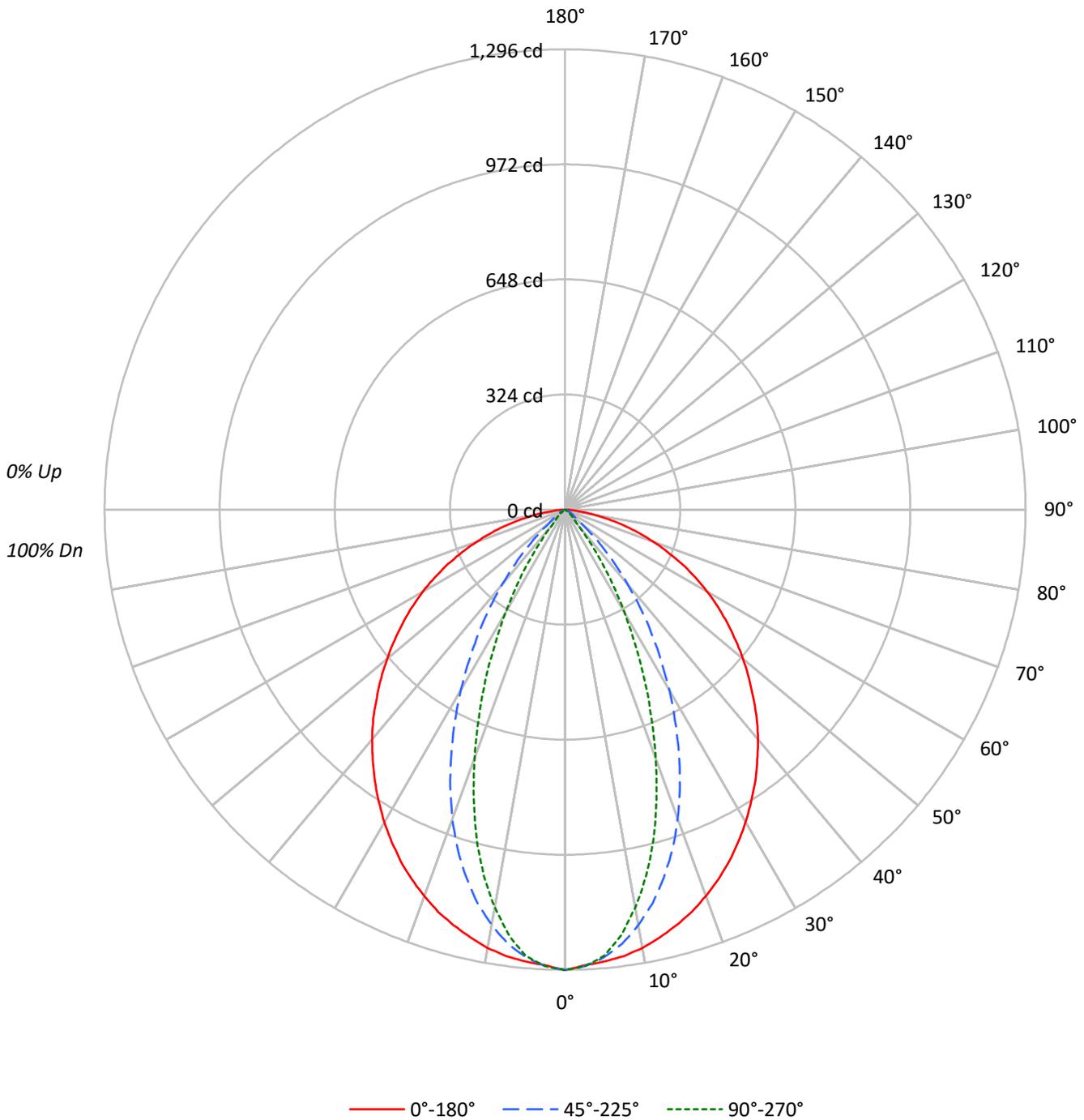
Lumens per Lamp: N/A
Luminaire Lumens: 1517.2 lumens
Efficiency: N/A
Efficacy: 36.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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				
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54				
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43				
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15630	15630	15630
5°	15462	15316	15267
10°	15345	14538	13928
15°	15124	13395	12002
20°	14856	11888	9558
25°	14544	10072	7049
30°	14154	8162	4625
35°	13736	6215	2533
40°	13293	4297	867
45°	12772	2500	505
50°	12259	983	302
55°	11731	622	141
60°	11123	388	65
65°	10358	191	37
70°	9292	95	46
75°	7891	61	61
80°	5881	90	0
85°	2227	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12772 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.9	7.8
10°-20°	301.6	19.9
20°-30°	359.8	23.7
30°-40°	305.2	20.1
40°-50°	207.4	13.7
50°-60°	128.6	8.5
60°-70°	65.1	4.3
70°-80°	26.5	1.7
80°-90°	4.1	0.3
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°	780.3	51.4
0°-40°	1085.5	71.5
0°-60°	1421.5	93.7
0°-90°	1517.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1517.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1278	1290	1266	1256	1262	121
15°	1212	1181	1073	988	962	342
25°	1093	991	757	585	530	503
35°	933	749	422	227	172	583
45°	749	491	147	36	30	579
55°	558	247	30	11	7	499
65°	363	60	7	1	1	359
75°	169	11	1	1	1	180
85°	16	0	0	1	0	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1296.4	1296.4	1296.4	1296.4	1296.4
2.5°	1284.3	1301.8	1287.0	1285.7	1287.0
5°	1277.6	1289.7	1265.5	1256.1	1261.5
7.5°	1268.2	1273.6	1233.2	1209.0	1209.0
10°	1253.4	1249.3	1187.5	1147.1	1137.7
12.5°	1233.2	1217.1	1136.4	1073.2	1055.7
15°	1211.7	1180.8	1073.2	988.5	961.6
17.5°	1187.5	1140.4	1004.6	894.3	855.3
20°	1157.9	1094.7	926.6	792.1	745.0
22.5°	1127.0	1044.9	844.6	687.2	634.8
25°	1093.3	991.1	757.1	585.0	529.9
27.5°	1055.7	934.7	671.1	486.8	426.3
30°	1016.7	875.5	586.3	392.7	332.2
32.5°	975.0	813.6	501.6	306.6	250.1
35°	933.3	749.1	422.3	227.3	172.1
37.5°	888.9	684.5	345.6	157.3	108.9
40°	844.6	621.3	273.0	99.5	55.1
42.5°	798.8	555.4	207.1	49.8	37.7
45°	749.1	490.9	146.6	36.3	29.6
47.5°	702.0	429.0	96.8	29.6	22.9
50°	653.6	367.1	52.4	21.5	16.1
52.5°	605.2	308.0	37.7	16.1	10.8
55°	558.1	247.4	29.6	10.8	6.7
57.5°	509.7	195.0	22.9	6.7	4.0
60°	461.3	143.9	16.1	4.0	2.7
62.5°	412.9	99.5	10.8	2.7	1.3
65°	363.1	60.5	6.7	1.3	1.3
67.5°	312.0	41.7	4.0	1.3	1.3
70°	263.6	29.6	2.7	1.3	1.3
72.5°	215.2	18.8	1.3	1.3	0.0
75°	169.4	10.8	1.3	1.3	1.3
77.5°	125.1	4.0	1.3	1.3	0.0
80°	84.7	1.3	1.3	1.3	0.0
82.5°	47.1	0.0	1.3	1.3	0.0
85°	16.1	0.0	0.0	1.3	0.0
87.5°	0.0	0.0	0.0	1.3	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)