

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: P1055956

Luminaire Tested: S124R3DR-S1020D835-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055956
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S1020D835-X4F0-XX-UDD-FLL-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

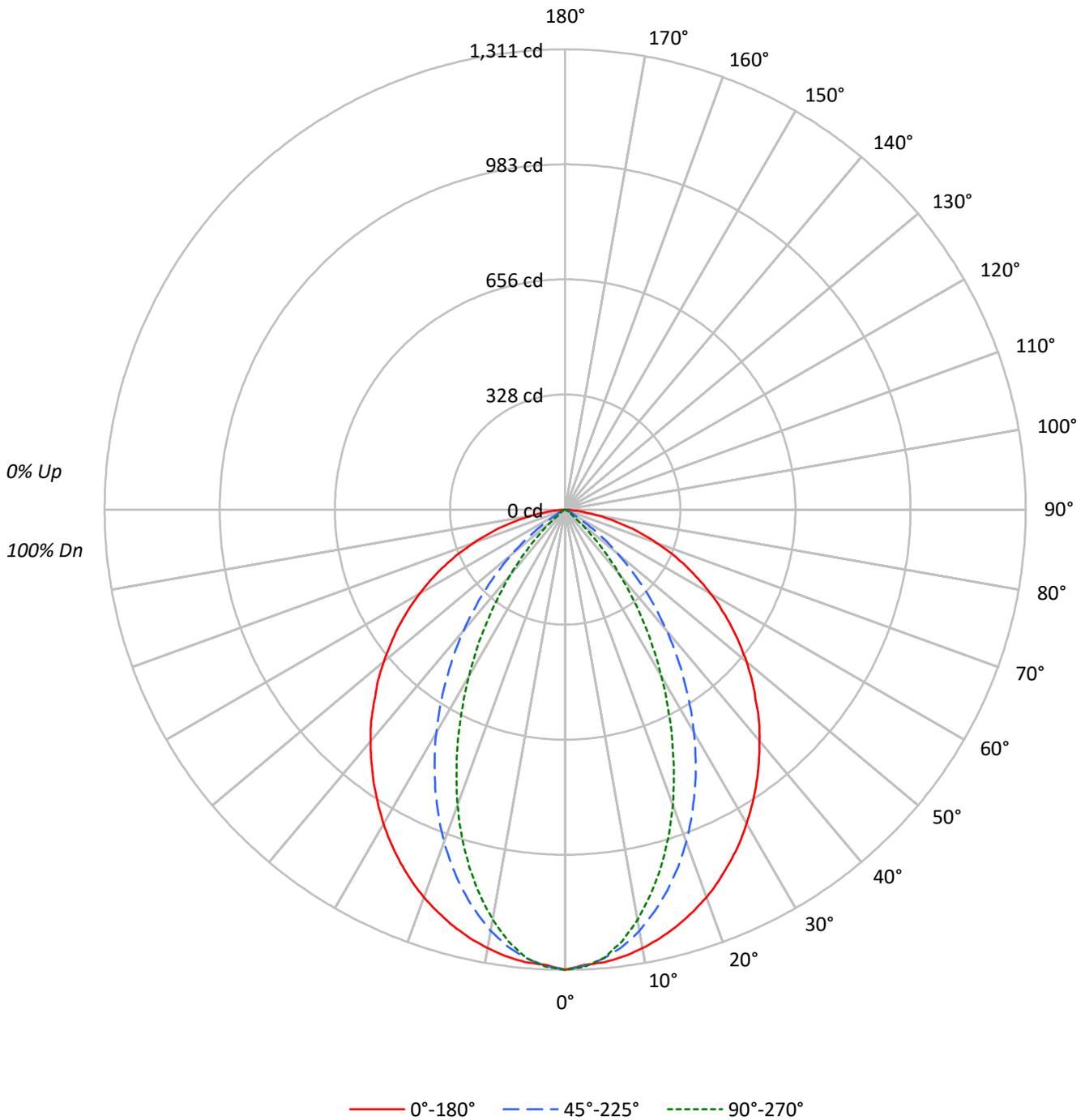
Lumens per Lamp: N/A
Luminaire Lumens: 1832.0 lumens
Efficiency: N/A
Efficacy: 52.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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: P1055956

CATALOG NUMBER: S124R3DR-S1020D835-X4F0-XX-UDD-FLL-B

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	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	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11589	11589	11589
5°	11485	11382	11371
10°	11387	10937	10649
15°	11245	10280	9646
20°	11063	9479	8427
25°	10819	8537	7033
30°	10548	7491	5588
35°	10250	6353	4161
40°	9937	5176	2773
45°	9593	3952	1527
50°	9262	2704	424
55°	8894	1466	277
60°	8452	454	159
65°	7904	295	82
70°	7142	132	34
75°	6145	44	0
80°	4643	0	0
85°	1958	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9593 cd/sqm



TEST NUMBER: P1055956

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.9	6.6
10°-20°	317.5	17.3
20°-30°	410.2	22.4
30°-40°	392.1	21.4
40°-50°	293.2	16.0
50°-60°	174.5	9.5
60°-70°	88.6	4.8
70°-80°	30.8	1.7
80°-90°	4.2	0.2
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°	848.6	46.3
0°-40°	1240.7	67.7
0°-60°	1708.4	93.3
0°-90°	1832.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1832.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1311	1311	1311	1311	1311	
5°	1294	1304	1282	1276	1281	123
15°	1228	1203	1123	1070	1054	346
25°	1109	1032	875	760	721	511
35°	950	819	589	438	386	594
45°	767	589	316	168	122	593
55°	577	358	95	22	18	515
65°	378	145	14	5	4	374
75°	180	19	1	1	0	191
85°	19	0	0	0	0	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1310.8	1310.8	1310.8	1310.8	1310.8
2.5°	1297.9	1313.3	1300.5	1301.8	1303.1
5°	1294.1	1304.3	1282.5	1276.1	1281.2
7.5°	1283.8	1287.6	1255.5	1238.8	1240.1
10°	1268.4	1264.5	1218.2	1190.0	1186.1
12.5°	1250.4	1237.5	1173.3	1132.1	1123.1
15°	1228.5	1202.8	1123.1	1070.5	1053.8
17.5°	1202.8	1165.6	1067.9	998.5	977.9
20°	1175.8	1124.4	1007.5	921.4	895.7
22.5°	1143.7	1078.2	942.0	840.4	808.3
25°	1109.0	1031.9	875.1	759.5	720.9
27.5°	1073.0	981.8	804.5	677.2	632.3
30°	1033.2	929.1	733.8	593.7	547.4
32.5°	992.1	875.1	660.5	516.6	465.2
35°	949.7	818.6	588.6	438.2	385.5
37.5°	906.0	762.0	519.2	363.7	309.7
40°	861.0	704.2	448.5	293.0	240.3
42.5°	817.3	646.4	381.7	226.2	177.3
45°	767.2	588.6	316.1	168.3	122.1
47.5°	722.2	532.0	253.2	114.4	72.0
50°	673.4	471.6	196.6	66.8	30.8
52.5°	624.5	415.1	143.9	29.6	23.1
55°	577.0	358.5	95.1	21.8	18.0
57.5°	526.9	302.0	51.4	16.7	12.9
60°	478.0	246.7	25.7	12.9	9.0
62.5°	427.9	194.0	20.6	7.7	5.1
65°	377.8	145.2	14.1	5.1	3.9
67.5°	327.7	98.9	9.0	2.6	1.3
70°	276.3	60.4	5.1	1.3	1.3
72.5°	227.5	30.8	2.6	1.3	1.3
75°	179.9	19.3	1.3	1.3	0.0
77.5°	133.6	10.3	1.3	1.3	0.0
80°	91.2	3.9	0.0	0.0	0.0
82.5°	52.7	1.3	0.0	0.0	0.0
85°	19.3	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)