

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: P1056039

Luminaire Tested: S124R3DR-S575D835-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056039
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S575D835-X4F0-XX-UDD-FLL-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

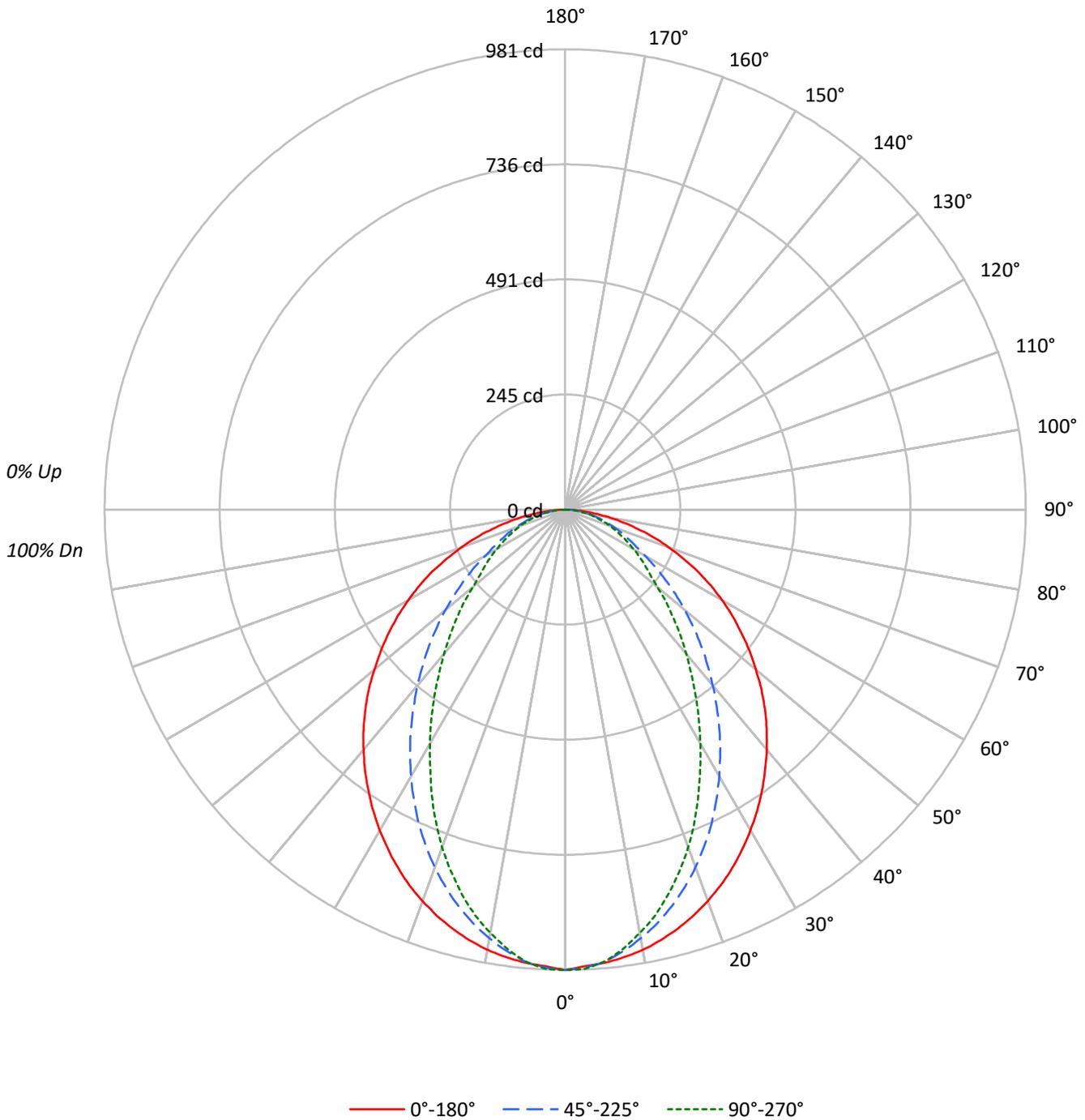
Lumens per Lamp: N/A
Luminaire Lumens: 1954.7 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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: P1056039

CATALOG NUMBER: S124R3DR-S575D835-X4F0-XX-UDD-FLL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1056039

CATALOG NUMBER: S124R3DR-S575D835-X4F0-XX-UDD-FLL-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86			86																
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73			73																
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63			63																
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55			55																
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49			49																
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43			43																
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39			39																
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35			35																
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32			32																
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29			29																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8677	8677	8677
5°	8607	8588	8582
10°	8558	8331	8227
15°	8468	8018	7773
20°	8357	7637	7209
25°	8221	7199	6552
30°	8058	6701	5884
35°	7888	6181	5238
40°	7710	5643	4634
45°	7521	5120	4072
50°	7291	4569	3516
55°	7069	4019	3195
60°	6818	3448	2962
65°	6510	3128	2766
70°	6049	2893	2613
75°	5476	2665	2466
80°	4781	2464	2317
85°	3662	2272	2120

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7521 cd/sqm



TEST NUMBER: P1056039

CATALOG NUMBER: S124R3DR-S575D835-X4F0-XX-UDD-FLL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.4	4.7
10°-20°	247.8	12.7
20°-30°	343.2	17.6
30°-40°	368.3	18.8
40°-50°	335.0	17.1
50°-60°	263.8	13.5
60°-70°	180.5	9.2
70°-80°	97.2	5.0
80°-90°	27.5	1.4
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°	682.4	34.9
0°-40°	1050.7	53.8
0°-60°	1649.5	84.4
0°-90°	1954.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1954.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	970	981	968	963	967	92
15°	925	915	876	852	849	261
25°	843	808	738	685	672	388
35°	731	674	573	503	485	457
45°	602	525	410	339	326	464
55°	459	371	261	210	207	410
65°	311	222	150	133	132	307
75°	160	98	78	72	72	171
85°	36	25	22	21	21	43
90°	0	0	0	0	0	



TEST NUMBER: P1056039

CATALOG NUMBER: S124R3DR-S575D835-X4F0-XX-UDD-FLL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	981.4	981.4	981.4	981.4	981.4
2.5°	974.2	985.7	977.1	978.5	979.9
5°	969.8	980.7	967.7	962.6	967.0
7.5°	962.6	969.8	949.6	940.2	944.6
10°	953.2	954.7	928.0	914.2	916.4
12.5°	940.2	936.6	904.1	884.6	886.1
15°	925.1	915.0	876.0	852.1	849.2
17.5°	907.7	891.1	844.9	814.6	808.8
20°	888.2	865.9	811.7	772.7	766.2
22.5°	866.6	837.7	775.6	729.4	720.0
25°	842.7	808.1	738.0	684.6	671.6
27.5°	816.7	776.3	697.6	639.1	622.5
30°	789.3	743.1	656.4	593.6	576.3
32.5°	761.1	709.1	614.5	548.1	530.1
35°	730.8	673.8	572.7	503.3	485.3
37.5°	699.8	636.9	530.1	460.0	441.2
40°	668.0	600.1	488.9	416.7	401.5
42.5°	635.5	562.6	448.5	376.2	362.5
45°	601.5	525.0	409.5	338.7	325.7
47.5°	566.9	486.7	369.7	303.3	291.0
50°	530.1	448.5	332.2	268.6	255.6
52.5°	494.7	409.5	296.1	234.7	228.2
55°	458.6	371.2	260.7	210.1	207.3
57.5°	422.5	332.9	228.2	190.6	187.8
60°	385.6	295.4	195.0	170.4	167.5
62.5°	348.8	258.5	170.4	150.9	149.5
65°	311.2	222.4	149.5	132.9	132.2
67.5°	271.5	187.8	130.7	117.0	116.3
70°	234.0	153.1	111.9	101.1	101.1
72.5°	198.6	121.3	94.6	85.9	85.9
75°	160.3	97.5	78.0	71.5	72.2
77.5°	126.4	76.5	62.8	58.5	58.5
80°	93.9	57.0	48.4	44.8	45.5
82.5°	63.5	39.7	34.7	32.5	32.5
85°	36.1	24.6	22.4	20.9	20.9
87.5°	13.0	11.6	10.8	9.4	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)