

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: P1055578

Luminaire Tested: S123R3DR-S1165D835-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055578
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-S1165D835-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

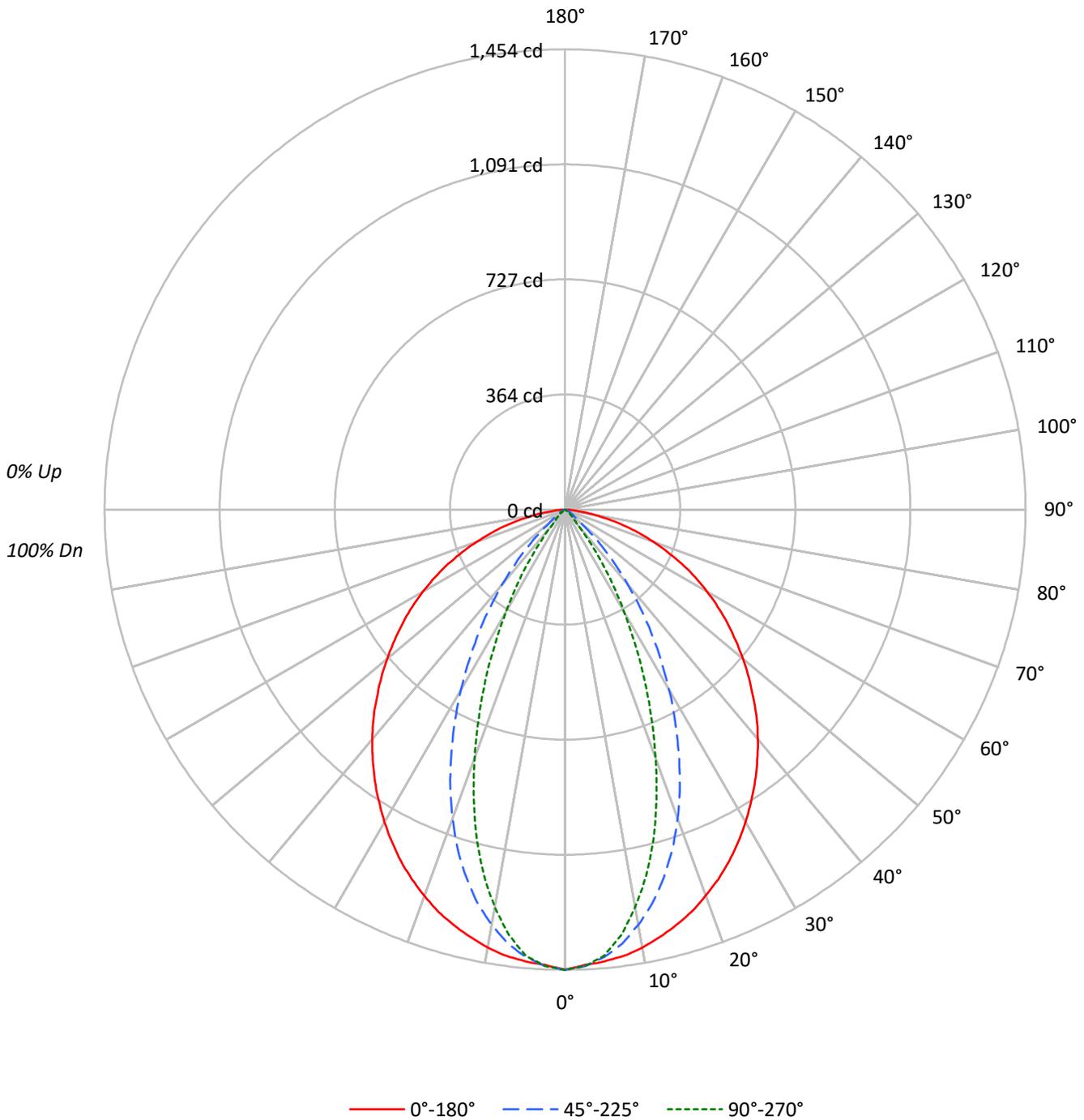
Lumens per Lamp: N/A
Luminaire Lumens: 1701.6 lumens
Efficiency: N/A
Efficacy: 40.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1055578

CATALOG NUMBER: S123R3DR-S1165D835-X4F0-XX-UDD-FLL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1055578

CATALOG NUMBER: S123R3DR-S1165D835-X4F0-XX-UDD-FLL-B

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°	17529	17529	17529
5°	17339	17176	17120
10°	17208	16303	15620
15°	16960	15022	13459
20°	16660	13332	10720
25°	16311	11295	7905
30°	15873	9155	5186
35°	15405	6971	2841
40°	14906	4819	973
45°	14322	2803	566
50°	13748	1103	339
55°	13156	698	158
60°	12474	436	72
65°	11617	214	43
70°	10420	106	53
75°	8851	70	70
80°	6596	104	0
85°	2504	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14322 cd/sqm



TEST NUMBER: P1055578

CATALOG NUMBER: S123R3DR-S1165D835-X4F0-XX-UDD-FLL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.3	7.8
10°-20°	338.3	19.9
20°-30°	403.5	23.7
30°-40°	342.3	20.1
40°-50°	232.6	13.7
50°-60°	144.2	8.5
60°-70°	73.0	4.3
70°-80°	29.8	1.8
80°-90°	4.6	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°	875.1	51.4
0°-40°	1217.4	71.5
0°-60°	1594.2	93.7
0°-90°	1701.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1701.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1454	1454	1454	1454	1454	
5°	1433	1446	1419	1409	1415	136
15°	1359	1324	1204	1108	1078	383
25°	1226	1112	849	656	594	564
35°	1047	840	474	255	193	654
45°	840	550	164	41	33	649
55°	626	278	33	12	8	559
65°	407	68	8	2	2	402
75°	190	12	2	2	2	202
85°	18	0	0	2	0	32
90°	0	0	0	0	0	



TEST NUMBER: P1055578

CATALOG NUMBER: S123R3DR-S1165D835-X4F0-XX-UDD-FLL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1453.9	1453.9	1453.9	1453.9	1453.9
2.5°	1440.3	1459.9	1443.3	1441.8	1443.3
5°	1432.7	1446.3	1419.2	1408.6	1414.6
7.5°	1422.2	1428.2	1383.0	1355.8	1355.8
10°	1405.6	1401.1	1331.7	1286.5	1275.9
12.5°	1383.0	1364.9	1274.4	1203.5	1183.9
15°	1358.8	1324.2	1203.5	1108.5	1078.3
17.5°	1331.7	1278.9	1126.6	1002.9	959.2
20°	1298.5	1227.6	1039.1	888.3	835.5
22.5°	1263.8	1171.8	947.1	770.7	711.8
25°	1226.1	1111.5	849.1	656.0	594.2
27.5°	1183.9	1048.2	752.6	546.0	478.1
30°	1140.2	981.8	657.6	440.4	372.5
32.5°	1093.4	912.4	562.5	343.9	280.5
35°	1046.7	840.0	473.6	254.9	193.0
37.5°	996.9	767.6	387.6	176.5	122.2
40°	947.1	696.8	306.2	111.6	61.8
42.5°	895.8	622.9	232.3	55.8	42.2
45°	840.0	550.5	164.4	40.7	33.2
47.5°	787.3	481.1	108.6	33.2	25.6
50°	733.0	411.7	58.8	24.1	18.1
52.5°	678.7	345.4	42.2	18.1	12.1
55°	625.9	277.5	33.2	12.1	7.5
57.5°	571.6	218.7	25.6	7.5	4.5
60°	517.3	161.4	18.1	4.5	3.0
62.5°	463.0	111.6	12.1	3.0	1.5
65°	407.2	67.9	7.5	1.5	1.5
67.5°	349.9	46.8	4.5	1.5	1.5
70°	295.6	33.2	3.0	1.5	1.5
72.5°	241.3	21.1	1.5	1.5	0.0
75°	190.0	12.1	1.5	1.5	1.5
77.5°	140.3	4.5	1.5	1.5	0.0
80°	95.0	1.5	1.5	1.5	0.0
82.5°	52.8	0.0	1.5	1.5	0.0
85°	18.1	0.0	0.0	1.5	0.0
87.5°	0.0	0.0	0.0	1.5	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)