

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: P1055658

Luminaire Tested: S123R3DR-S775D830-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055658  
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-S775D830-X4F0-XX-UDD-FLL-W  
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

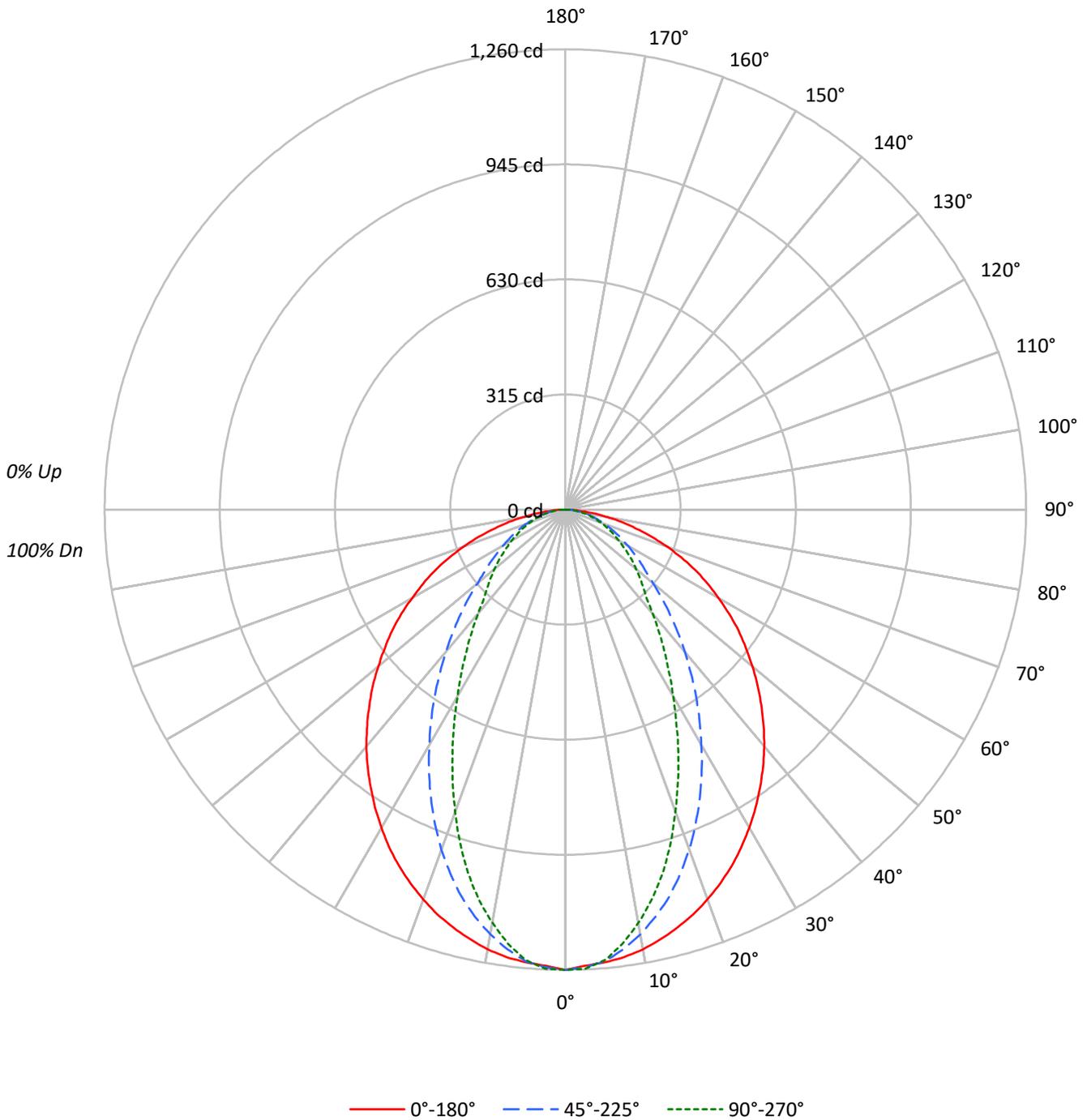
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2210.1 lumens  
Efficiency: N/A  
Efficacy: 83.7 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): 26.4  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	15193	15193	15193
5°	15058	15023	14989
10°	14966	14458	14067
15°	14788	13694	12847
20°	14572	12710	11294
25°	14319	11573	9718
30°	14001	10353	8214
35°	13664	9156	6937
40°	13321	7995	5830
45°	12921	6895	5142
50°	12516	5869	4721
55°	12145	5230	4359
60°	11637	4726	4068
65°	11160	4328	3817
70°	10399	3987	3589
75°	9307	3689	3382
80°	7984	3402	3138
85°	5602	3126	3002

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12921 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.8	5.3
10°-20°	309.1	14.0
20°-30°	407.1	18.4
30°-40°	413.2	18.7
40°-50°	359.2	16.3
50°-60°	281.4	12.7
60°-70°	191.2	8.7
70°-80°	103.6	4.7
80°-90°	28.5	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°	833.0	37.7
0°-40°	1246.2	56.4
0°-60°	1886.8	85.4
0°-90°	2210.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2210.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1244	1259	1241	1230	1238	118
15°	1185	1168	1097	1043	1029	334
25°	1076	1011	870	762	730	495
35°	928	818	622	503	471	581
45°	758	608	404	312	302	585
55°	578	402	249	212	207	516
65°	391	217	152	136	134	386
75°	200	100	79	74	73	213
85°	40	24	23	21	22	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1260.2	1260.2	1260.2	1260.2	1260.2
2.5°	1249.8	1265.8	1253.6	1254.5	1258.3
5°	1244.2	1259.2	1241.3	1230.0	1238.5
7.5°	1235.7	1247.0	1214.0	1196.1	1198.9
10°	1222.5	1226.2	1181.0	1152.7	1149.0
12.5°	1204.6	1198.0	1141.4	1099.9	1093.3
15°	1184.8	1167.8	1097.1	1043.4	1029.3
17.5°	1162.2	1133.9	1045.3	979.3	957.6
20°	1135.8	1096.2	990.6	906.7	880.3
22.5°	1107.5	1056.6	931.2	832.3	804.9
25°	1076.4	1011.3	870.0	761.6	730.5
27.5°	1042.5	966.1	807.8	691.8	657.0
30°	1005.7	919.0	743.7	624.0	590.0
32.5°	968.0	869.0	682.4	560.8	527.8
35°	928.4	818.1	622.1	503.3	471.3
37.5°	887.9	766.3	563.6	448.6	418.5
40°	846.4	713.5	508.0	397.8	370.4
42.5°	802.1	660.7	454.3	349.7	328.9
45°	757.8	607.9	404.4	312.0	301.6
47.5°	713.5	554.2	357.2	285.6	276.2
50°	667.3	502.4	312.9	261.1	251.7
52.5°	622.1	451.5	276.2	237.5	230.9
55°	577.8	401.5	248.8	212.1	207.4
57.5°	531.6	352.5	221.5	192.3	186.6
60°	482.6	305.4	196.0	171.5	168.7
62.5°	438.3	261.1	173.4	153.6	150.8
65°	391.2	216.8	151.7	135.7	133.8
67.5°	343.1	180.0	132.0	118.8	117.8
70°	295.0	151.7	113.1	102.7	101.8
72.5°	247.9	125.4	95.2	88.6	86.7
75°	199.8	99.9	79.2	73.5	72.6
77.5°	156.5	77.3	63.2	59.4	58.4
80°	115.0	57.5	49.0	46.2	45.2
82.5°	75.4	39.6	34.9	33.0	33.0
85°	40.5	24.5	22.6	20.7	21.7
87.5°	14.1	10.4	10.4	9.4	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)