

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: P1055975

Luminaire Tested: S124R3DR-S1020D940-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055975
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S1020D940-X4F0-XX-UDD-FLL-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

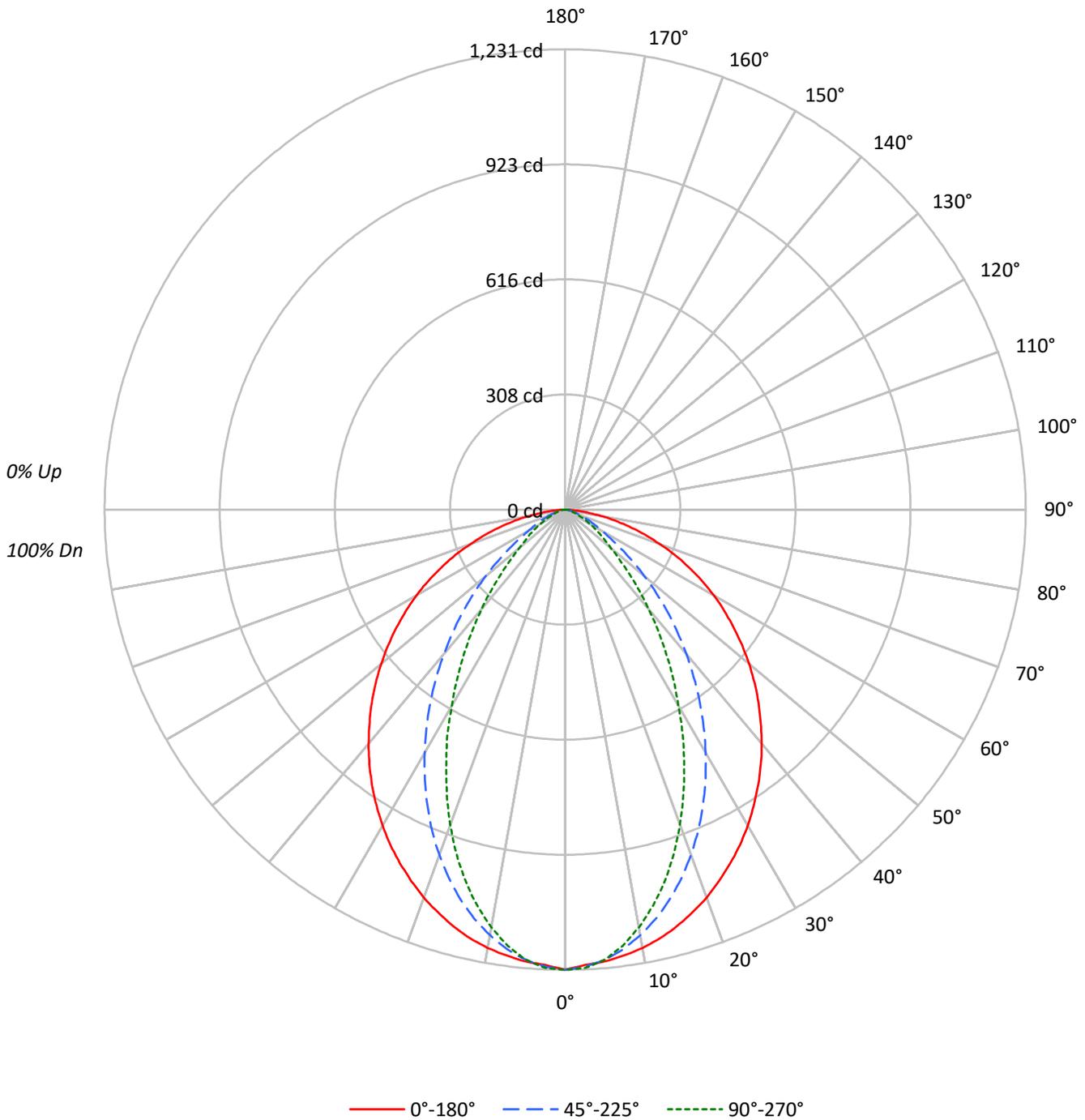
Lumens per Lamp: N/A
Luminaire Lumens: 1990.0 lumens
Efficiency: N/A
Efficacy: 57.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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

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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				100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89				89
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78				78
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60				60
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54				54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48				48
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44				44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40				40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37				37
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10881	10881	10881
5°	10770	10729	10729
10°	10689	10380	10184
15°	10562	9880	9419
20°	10394	9251	8442
25°	10184	8507	7333
30°	9967	7663	6177
35°	9709	6765	5084
40°	9429	5807	4007
45°	9141	4829	2995
50°	8826	3799	2191
55°	8478	2809	1748
60°	8106	1945	1337
65°	7623	1510	983
70°	6902	1068	770
75°	6029	745	588
80°	4842	586	524
85°	2678	467	467

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9141 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.2	5.7
10°-20°	305.0	15.3
20°-30°	406.8	20.4
30°-40°	409.6	20.6
40°-50°	335.9	16.9
50°-60°	229.6	11.5
60°-70°	128.3	6.4
70°-80°	50.9	2.6
80°-90°	9.7	0.5
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°	826.0	41.5
0°-40°	1235.6	62.1
0°-60°	1801.2	90.5
0°-90°	1990.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1990.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1231	1231	1231	1231	1231	
5°	1214	1227	1209	1203	1209	115
15°	1154	1141	1079	1042	1029	325
25°	1044	992	872	784	752	481
35°	900	804	627	508	471	563
45°	731	597	386	272	240	564
55°	550	386	182	122	113	492
65°	364	183	72	52	47	360
75°	176	48	22	18	17	189
85°	26	5	5	5	5	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1230.7	1230.7	1230.7	1230.7	1230.7
2.5°	1219.2	1234.1	1223.8	1225.0	1227.3
5°	1213.5	1227.3	1208.9	1203.2	1208.9
7.5°	1203.2	1213.5	1186.0	1174.6	1176.8
10°	1190.6	1194.0	1156.2	1136.7	1134.4
12.5°	1174.6	1170.0	1120.7	1092.0	1085.2
15°	1153.9	1141.3	1079.4	1041.6	1029.0
17.5°	1129.9	1108.1	1033.6	984.3	966.0
20°	1104.7	1072.6	983.2	920.2	897.2
22.5°	1074.9	1034.8	929.3	852.6	826.2
25°	1043.9	992.4	872.0	783.8	751.7
27.5°	1011.8	948.8	812.4	713.9	681.8
30°	976.3	901.8	750.6	644.0	605.0
32.5°	938.5	853.7	688.7	575.2	538.6
35°	899.5	804.4	626.8	507.6	471.0
37.5°	859.4	754.0	564.9	443.5	406.8
40°	817.0	702.4	503.1	382.7	347.2
42.5°	773.5	649.7	443.5	325.4	292.2
45°	731.1	597.0	386.2	271.6	239.5
47.5°	686.4	544.3	330.0	221.2	193.7
50°	641.7	491.6	276.2	177.6	159.3
52.5°	595.9	438.9	226.9	145.5	132.9
55°	550.0	386.2	182.2	121.5	113.4
57.5°	504.2	333.5	140.9	103.1	94.0
60°	458.4	281.9	110.0	83.7	75.6
62.5°	411.4	230.3	90.5	66.5	59.6
65°	364.4	183.3	72.2	51.6	47.0
67.5°	317.4	139.8	55.0	40.1	36.7
70°	267.0	99.7	41.3	30.9	29.8
72.5°	223.5	67.6	29.8	24.1	22.9
75°	176.5	48.1	21.8	18.3	17.2
77.5°	136.4	30.9	16.0	14.9	13.8
80°	95.1	17.2	11.5	10.3	10.3
82.5°	58.4	9.2	8.0	6.9	6.9
85°	26.4	4.6	4.6	4.6	4.6
87.5°	4.6	2.3	2.3	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)