

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: P1055957

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055957
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-S1020D835-X4F0-XX-UDD-FLL-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

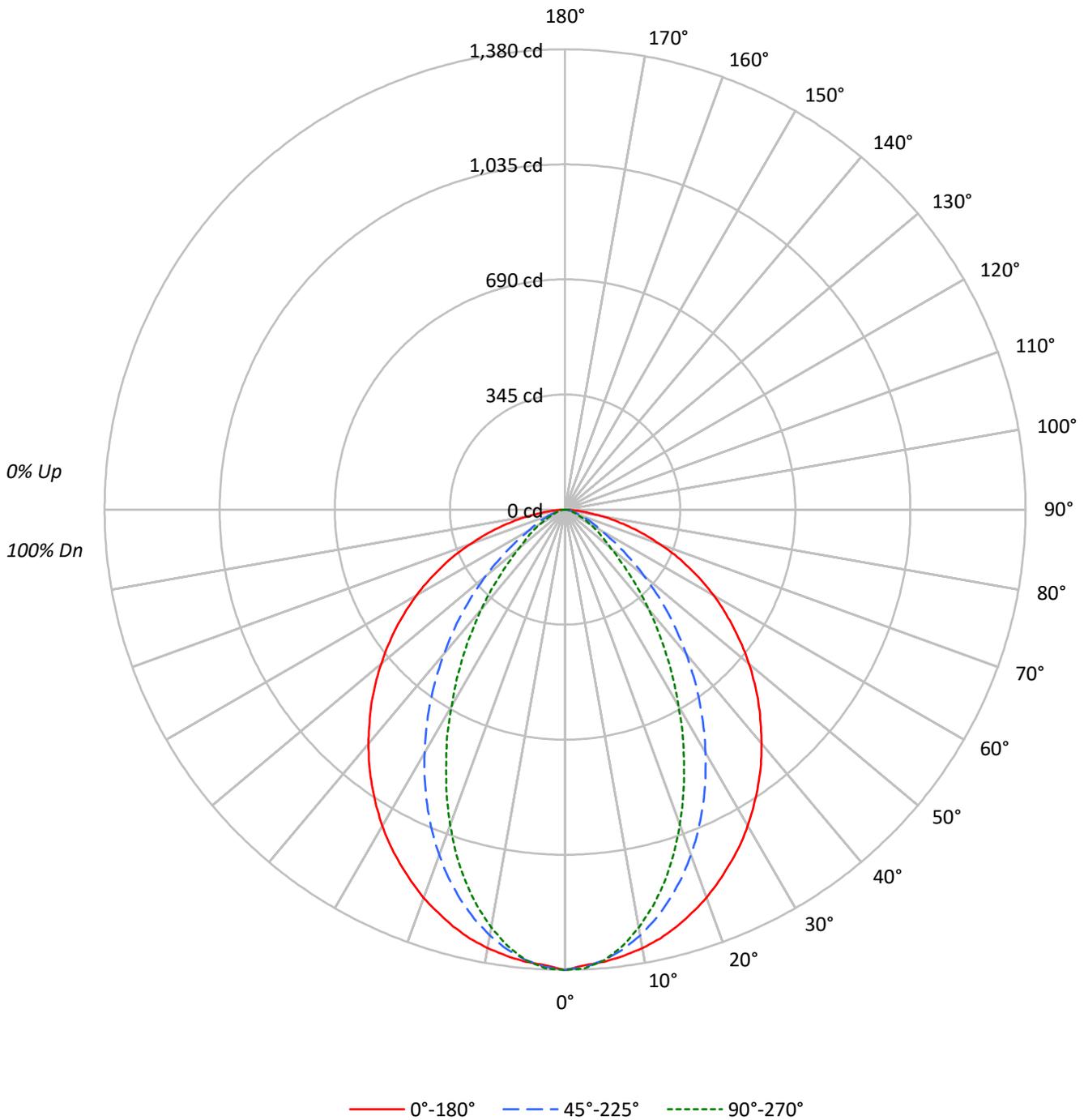
Lumens per Lamp: N/A
Luminaire Lumens: 2231.7 lumens
Efficiency: N/A
Efficacy: 64.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12203	12203	12203
5°	12078	12032	12032
10°	11987	11641	11422
15°	11845	11080	10563
20°	11656	10374	9467
25°	11421	9540	8224
30°	11178	8593	6927
35°	10888	7587	5701
40°	10576	6511	4494
45°	10252	5415	3358
50°	9898	4260	2457
55°	9508	3149	1961
60°	9089	2182	1499
65°	8550	1695	1103
70°	7740	1197	863
75°	6760	834	659
80°	5433	657	591
85°	3003	517	517

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10252 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.0	5.7
10°-20°	342.1	15.3
20°-30°	456.2	20.4
30°-40°	459.4	20.6
40°-50°	376.7	16.9
50°-60°	257.5	11.5
60°-70°	143.9	6.4
70°-80°	57.1	2.6
80°-90°	10.8	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°	926.3	41.5
0°-40°	1385.7	62.1
0°-60°	2019.9	90.5
0°-90°	2231.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2231.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1380	1380	1380	1380	1380	
5°	1361	1376	1356	1349	1356	129
15°	1294	1280	1210	1168	1154	365
25°	1171	1113	978	879	843	539
35°	1009	902	703	569	528	631
45°	820	670	433	305	269	632
55°	617	433	204	136	127	552
65°	409	206	81	58	53	404
75°	198	54	24	21	19	212
85°	30	5	5	5	5	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1380.2	1380.2	1380.2	1380.2	1380.2
2.5°	1367.3	1384.0	1372.4	1373.7	1376.3
5°	1360.9	1376.3	1355.7	1349.3	1355.7
7.5°	1349.3	1360.9	1330.0	1317.2	1319.8
10°	1335.2	1339.0	1296.6	1274.8	1272.2
12.5°	1317.2	1312.1	1256.8	1224.7	1217.0
15°	1294.1	1279.9	1210.5	1168.1	1154.0
17.5°	1267.1	1242.7	1159.1	1103.9	1083.3
20°	1238.8	1202.8	1102.6	1031.9	1006.2
22.5°	1205.4	1160.4	1042.2	956.1	926.5
25°	1170.7	1112.9	977.9	879.0	843.0
27.5°	1134.7	1064.0	911.1	800.6	764.6
30°	1094.9	1011.3	841.7	722.2	678.5
32.5°	1052.5	957.4	772.3	645.1	604.0
35°	1008.8	902.1	702.9	569.3	528.2
37.5°	963.8	845.6	633.5	497.3	456.2
40°	916.3	787.7	564.1	429.2	389.4
42.5°	867.4	728.6	497.3	365.0	327.7
45°	819.9	669.5	433.1	304.6	268.6
47.5°	769.8	610.4	370.1	248.0	217.2
50°	719.6	551.3	309.7	199.2	178.6
52.5°	668.2	492.2	254.4	163.2	149.1
55°	616.8	433.1	204.3	136.2	127.2
57.5°	565.4	374.0	158.1	115.7	105.4
60°	514.0	316.1	123.4	93.8	84.8
62.5°	461.3	258.3	101.5	74.5	66.8
65°	408.7	205.6	81.0	57.8	52.7
67.5°	356.0	156.8	61.7	45.0	41.1
70°	299.4	111.8	46.3	34.7	33.4
72.5°	250.6	75.8	33.4	27.0	25.7
75°	197.9	54.0	24.4	20.6	19.3
77.5°	152.9	34.7	18.0	16.7	15.4
80°	106.7	19.3	12.9	11.6	11.6
82.5°	65.5	10.3	9.0	7.7	7.7
85°	29.6	5.1	5.1	5.1	5.1
87.5°	5.1	2.6	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)