

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: P1055581

Luminaire Tested: S123R3DR-S1165D840-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055581
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-S1165D840-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

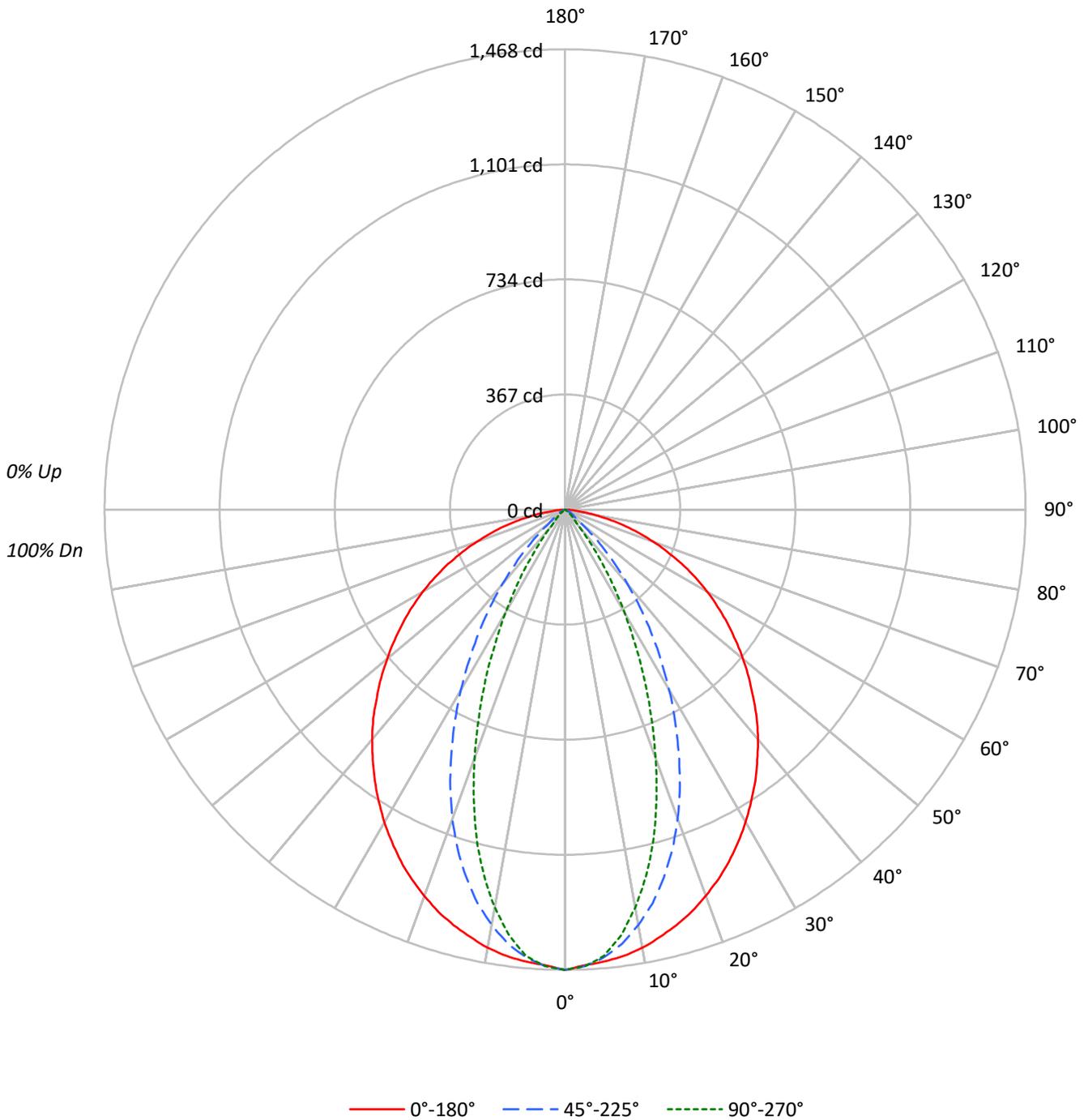
Lumens per Lamp: N/A
Luminaire Lumens: 1718.3 lumens
Efficiency: N/A
Efficacy: 41.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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

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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	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°	17701	17701	17701
5°	17511	17345	17290
10°	17378	16464	15774
15°	17127	15170	13593
20°	16824	13464	10826
25°	16471	11407	7983
30°	16029	9244	5237
35°	15557	7038	2869
40°	15054	4866	982
45°	14464	2830	571
50°	13884	1114	343
55°	13287	704	160
60°	12597	441	72
65°	11731	217	43
70°	10522	106	53
75°	8939	70	70
80°	6665	104	0
85°	2531	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14464 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.6	7.8
10°-20°	341.6	19.9
20°-30°	407.5	23.7
30°-40°	345.6	20.1
40°-50°	234.9	13.7
50°-60°	145.6	8.5
60°-70°	73.7	4.3
70°-80°	30.1	1.7
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°	883.7	51.4
0°-40°	1229.4	71.5
0°-60°	1609.9	93.7
0°-90°	1718.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1718.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1468	1468	1468	1468	1468	
5°	1447	1461	1433	1422	1429	137
15°	1372	1337	1215	1119	1089	387
25°	1238	1122	858	662	600	570
35°	1057	848	478	257	195	661
45°	848	556	166	41	34	655
55°	632	280	34	12	8	565
65°	411	68	8	2	2	406
75°	192	12	2	2	2	204
85°	18	0	0	2	0	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1468.2	1468.2	1468.2	1468.2	1468.2
2.5°	1454.5	1474.3	1457.5	1456.0	1457.5
5°	1446.9	1460.6	1433.2	1422.5	1428.6
7.5°	1436.2	1442.3	1396.6	1369.2	1369.2
10°	1419.5	1414.9	1344.8	1299.1	1288.5
12.5°	1396.6	1378.3	1287.0	1215.4	1195.6
15°	1372.2	1337.2	1215.4	1119.4	1089.0
17.5°	1344.8	1291.5	1137.7	1012.8	968.6
20°	1311.3	1239.7	1049.4	897.1	843.8
22.5°	1276.3	1183.4	956.5	778.3	718.9
25°	1238.2	1122.5	857.5	662.5	600.1
27.5°	1195.6	1058.5	760.0	551.3	482.8
30°	1151.4	991.5	664.0	444.7	376.2
32.5°	1104.2	921.4	568.1	347.3	283.3
35°	1057.0	848.3	478.2	257.4	194.9
37.5°	1006.7	775.2	391.4	178.2	123.4
40°	956.5	703.6	309.2	112.7	62.4
42.5°	904.7	629.0	234.5	56.4	42.6
45°	848.3	555.9	166.0	41.1	33.5
47.5°	795.0	485.8	109.7	33.5	25.9
50°	740.2	415.8	59.4	24.4	18.3
52.5°	685.4	348.8	42.6	18.3	12.2
55°	632.1	280.2	33.5	12.2	7.6
57.5°	577.2	220.8	25.9	7.6	4.6
60°	522.4	163.0	18.3	4.6	3.0
62.5°	467.6	112.7	12.2	3.0	1.5
65°	411.2	68.5	7.6	1.5	1.5
67.5°	353.3	47.2	4.6	1.5	1.5
70°	298.5	33.5	3.0	1.5	1.5
72.5°	243.7	21.3	1.5	1.5	0.0
75°	191.9	12.2	1.5	1.5	1.5
77.5°	141.6	4.6	1.5	1.5	0.0
80°	96.0	1.5	1.5	1.5	0.0
82.5°	53.3	0.0	1.5	1.5	0.0
85°	18.3	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)