

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P997685

Luminaire Tested: SA2XXRDP-B1005DB27-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997685
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXRDP-B1005DB27-4F0-XX-W2A-F
Description: Define 2 Regressed Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

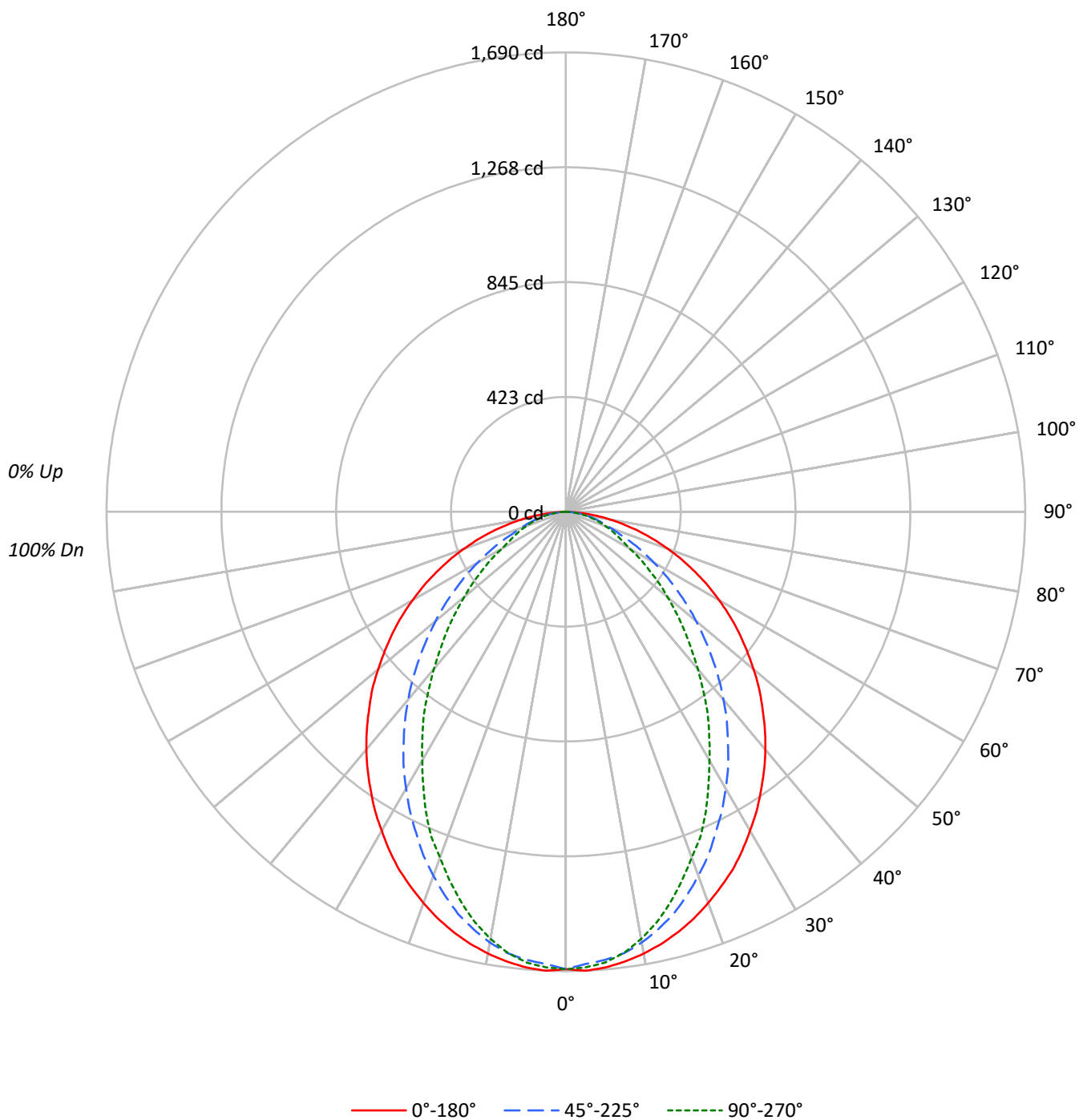
Lumens per Lamp: N/A
Luminaire Lumens: 3460.0 lumens
Efficiency: N/A
Efficacy: 56.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.3
Input Voltage (V):
Input Current (A_{in}): 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: P997685

CATALOG NUMBER: SA2XXRDP-B1005DB27-4F0-XX-W2A-F

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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26631	26631	26631
5°	26733	26298	26442
10°	26528	25867	25647
15°	26222	25099	24377
20°	25800	24006	22800
25°	25369	22763	21273
30°	24767	21484	19313
35°	24184	20095	17594
40°	23596	18655	15605
45°	22903	17042	13803
50°	22195	15408	12035
55°	21471	13655	10335
60°	20629	11809	8579
65°	19675	9922	7813
70°	18531	8173	7188
75°	17131	7449	6703
80°	15132	6664	6108
85°	11896	5249	5249

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 22903 cd/sqm

TEST NUMBER: P997685

CATALOG NUMBER: SA2XXRDP-B1005DB27-4F0-XX-W2A-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.7	4.6
10°-20°	432.8	12.5
20°-30°	607.7	17.6
30°-40°	662.4	19.1
40°-50°	608.8	17.6
50°-60°	478.1	13.8
60°-70°	311.2	9.0
70°-80°	160.2	4.6
80°-90°	40.9	1.2
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°	1198.2	34.6
0°-40°	1860.7	53.8
0°-60°	2947.6	85.2
0°-90°	3460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3460.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1682	1682	1682	1682	1682	
5°	1682	1675	1655	1669	1664	160
15°	1600	1583	1532	1503	1488	451
25°	1452	1404	1303	1241	1218	668
35°	1252	1174	1040	944	910	783
45°	1023	921	761	653	617	790
55°	778	659	495	404	374	695
65°	525	402	265	213	209	521
75°	280	174	122	111	110	296
85°	66	34	29	29	29	78
90°	0	0	0	0	0	

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CATALOG NUMBER: SA2XXRDP-B1005DB27-4F0-XX-W2A-F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1682.4	1682.4	1682.4	1682.4	1682.4
2.5°	1690.0	1682.4	1665.6	1680.8	1677.8
5°	1682.4	1674.8	1655.0	1668.7	1664.1
7.5°	1668.7	1659.5	1638.2	1644.3	1636.7
10°	1650.4	1639.7	1609.3	1604.7	1595.6
12.5°	1627.6	1613.9	1572.7	1563.6	1546.9
15°	1600.1	1583.4	1531.6	1502.7	1487.5
17.5°	1568.2	1543.8	1479.9	1446.4	1422.0
20°	1531.6	1501.2	1425.1	1387.0	1353.5
22.5°	1492.1	1457.0	1368.7	1317.0	1294.1
25°	1452.5	1403.7	1303.3	1240.8	1218.0
27.5°	1405.3	1353.5	1242.4	1170.8	1135.8
30°	1355.0	1297.2	1175.4	1097.7	1056.6
32.5°	1306.3	1236.3	1111.4	1020.1	982.0
35°	1251.5	1173.8	1039.9	944.0	910.5
37.5°	1198.2	1114.5	972.9	867.8	829.8
40°	1141.9	1050.5	902.8	794.7	755.2
42.5°	1084.0	986.6	832.8	720.1	682.1
45°	1023.1	921.1	761.3	653.2	616.6
47.5°	965.3	857.2	692.7	584.6	551.1
50°	901.3	793.2	625.7	520.7	488.7
52.5°	838.9	724.7	561.8	461.3	432.4
55°	778.0	659.2	494.8	403.5	374.5
57.5°	715.6	593.8	435.4	350.2	325.8
60°	651.6	529.8	373.0	295.4	271.0
62.5°	589.2	467.4	319.7	246.6	234.5
65°	525.3	401.9	264.9	213.2	208.6
67.5°	464.4	341.0	213.2	187.3	182.7
70°	400.4	281.7	176.6	161.4	155.3
72.5°	339.5	226.9	147.7	135.5	132.5
75°	280.1	173.6	121.8	111.1	109.6
77.5°	220.8	123.3	95.9	89.8	86.8
80°	166.0	88.3	73.1	67.0	67.0
82.5°	115.7	59.4	50.2	47.2	47.2
85°	65.5	33.5	28.9	28.9	28.9
87.5°	24.4	12.2	12.2	10.7	10.7
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	22.64	24.16	23.00	24.47	24.79	18.60	20.12	18.96	20.43	20.75
	3H	24.40	25.77	24.78	26.10	26.46	19.86	21.23	20.24	21.56	21.92
	4H	25.07	26.35	25.47	26.70	27.08	20.37	21.65	20.76	21.99	22.37
	6H	25.56	26.74	25.97	27.11	27.50	20.75	21.93	21.16	22.30	22.69
	8H	25.72	26.85	26.15	27.24	27.64	20.87	22.00	21.30	22.39	22.79
	12H	25.83	26.91	26.26	27.29	27.72	20.95	22.03	21.38	22.41	22.84
4H	2H	22.74	24.02	23.14	24.37	24.75	19.29	20.57	19.69	20.92	21.30
	3H	24.68	25.74	25.09	26.14	26.54	20.74	21.80	21.15	22.20	22.60
	4H	25.42	26.38	25.86	26.80	27.24	21.34	22.29	21.77	22.71	23.15
	6H	26.02	26.85	26.47	27.29	27.75	21.82	22.66	22.28	23.10	23.56
	8H	26.23	27.01	26.69	27.45	27.92	21.99	22.76	22.45	23.21	23.68
	12H	26.38	27.08	26.87	27.56	28.03	22.10	22.80	22.59	23.28	23.75
8H	4H	25.45	26.23	25.91	26.67	27.14	21.69	22.47	22.15	22.91	23.38
	6H	26.09	26.73	26.58	27.22	27.70	22.28	22.92	22.77	23.41	23.89
	8H	26.34	26.91	26.85	27.42	27.91	22.50	23.07	23.01	23.58	24.07
	12H	26.54	27.05	27.05	27.54	28.11	22.68	23.19	23.19	23.68	24.24
12H	4H	25.43	26.13	25.92	26.61	27.08	21.73	22.43	22.22	22.91	23.38
	6H	26.07	26.65	26.58	27.15	27.64	22.34	22.92	22.85	23.43	23.92
	8H	26.35	26.86	26.86	27.35	27.92	22.61	23.12	23.12	23.62	24.18