

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: P998324

Luminaire Tested: SA2XXDIP-B290D925UB27-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998324
REPORT IS A COMBINATION OF REPORTS P984064 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D925UB27-4F0-XX-W2A-F
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

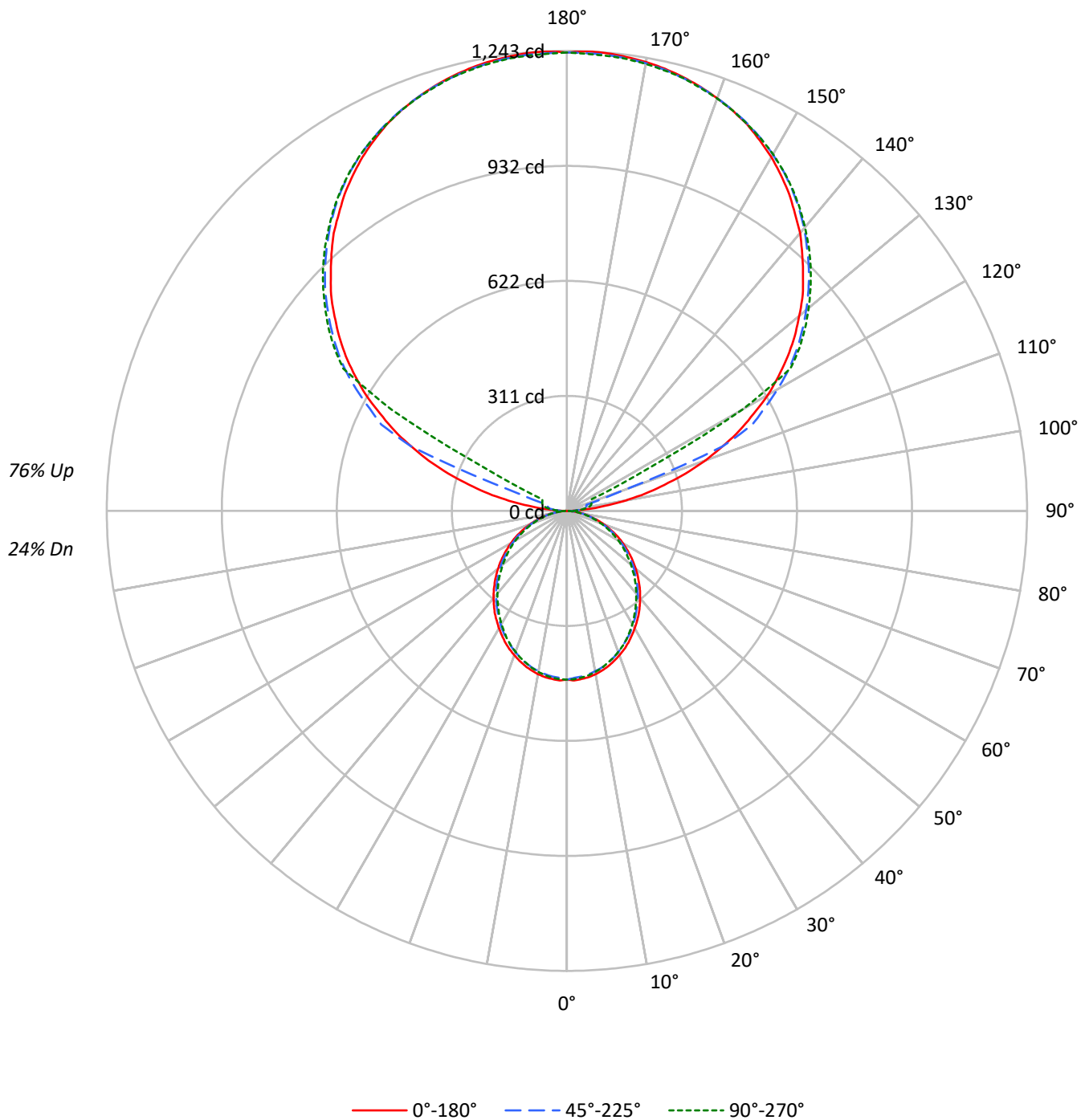
Lumens per Lamp: N/A
Luminaire Lumens: 4794.0 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 41.5
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	32	32	32
1	92	88	84	81	82	78	75	72	60	58	56	44	43	41	29	28	27
2	84	77	71	66	74	68	63	59	53	49	47	38	36	35	25	24	23
3	76	67	60	55	68	60	54	49	47	42	39	34	31	29	22	21	20
4	70	59	52	46	62	53	47	42	41	37	33	30	27	25	20	18	17
5	64	53	45	39	57	47	41	36	37	32	28	27	24	21	18	16	15
6	59	47	39	34	52	42	36	31	33	28	25	24	21	19	16	14	13
7	54	42	35	29	48	38	31	27	30	25	22	22	19	16	15	13	11
8	50	38	31	26	44	34	28	24	27	22	19	20	17	15	14	12	10
9	47	35	28	23	41	31	25	21	25	20	17	18	15	13	12	11	9
10	43	32	25	20	39	29	23	19	23	18	15	17	14	12	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7217	7217	7217
5°	7228	6880	6831
10°	7171	6566	6435
15°	7065	6250	6021
20°	6923	5907	5626
25°	6781	5548	5234
30°	6604	5210	4822
35°	6436	4855	4417
40°	6230	4503	4033
45°	6023	4155	3658
50°	5797	3801	3269
55°	5561	3422	2899
60°	5295	3012	2517
65°	5002	2595	2113
70°	4634	2139	1707
75°	4123	1649	1317
80°	3497	1120	847
85°	2543	521	360

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6023 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.9	0.9
10°-20°	120.7	2.5
20°-30°	177.4	3.7
30°-40°	206.1	4.3
40°-50°	205.8	4.3
50°-60°	179.5	3.7
60°-70°	132.7	2.8
70°-80°	75.1	1.6
80°-90°	22.0	0.5
90°-100°	40.9	0.9
100°-110°	152.3	3.2
110°-120°	403.9	8.4
120°-130°	669.8	14.0
130°-140°	711.5	14.8
140°-150°	661.3	13.8
150°-160°	531.6	11.1
160°-170°	342.6	7.1
170°-180°	117.9	2.5
0°-30°	341.1	7.1
0°-40°	547.2	11.4
0°-60°	932.5	19.5
0°-90°	1162.2	24.2
90°-120°	597.0	12.5
90°-150°	2639.6	55.1
90°-180°	3632.0	75.8
0°-180°	4794.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	456	454	449	453	452	43
15°	434	431	426	427	425	122
25°	393	389	382	383	382	181
35°	339	334	328	325	323	212
45°	276	273	266	261	260	213
55°	209	206	201	196	193	187
65°	141	138	134	130	128	139
75°	74	73	71	68	69	79
85°	18	18	17	16	15	20
90°	1	11	18	22	24	4
95°	58	29	35	39	38	69
105°	272	299	55	64	68	291
115°	515	531	553	138	74	507
125°	729	740	758	764	766	650
135°	902	916	924	933	931	697
145°	1046	1045	1060	1067	1062	654
155°	1152	1144	1155	1160	1153	531
165°	1214	1208	1211	1217	1211	343
175°	1242	1235	1237	1243	1234	118
180°	1239	1239	1239	1239	1239	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	455.9	455.9	455.9	455.9	455.9
2.5°	458.6	456.4	451.6	455.9	455.1
5°	455.9	454.2	449.4	452.9	452.0
7.5°	452.9	450.2	445.4	448.9	448.1
10°	448.1	445.0	439.7	443.2	441.9
12.5°	441.5	438.8	433.6	435.8	434.9
15°	434.0	431.4	425.7	427.4	425.3
17.5°	424.8	422.2	416.5	418.7	416.5
20°	414.7	412.1	406.0	407.3	405.5
22.5°	404.7	400.7	395.0	395.0	394.1
25°	392.8	389.3	381.9	382.7	381.9
27.5°	379.7	376.6	370.9	369.6	367.4
30°	366.5	363.0	356.4	355.1	353.4
32.5°	352.5	349.9	342.8	340.2	338.5
35°	338.9	334.5	327.5	324.9	322.7
37.5°	323.5	319.6	312.6	309.5	307.3
40°	307.8	304.3	297.2	293.3	291.5
42.5°	292.4	288.9	281.9	277.5	274.9
45°	275.8	272.7	266.1	261.3	259.5
47.5°	259.5	256.5	249.5	244.6	242.0
50°	242.4	240.2	234.1	228.0	225.8
52.5°	225.8	222.7	217.0	212.2	209.1
55°	208.7	206.1	200.8	195.5	193.3
57.5°	191.6	189.4	183.7	178.4	176.7
60°	174.5	172.7	166.6	161.8	160.5
62.5°	157.8	154.8	150.4	146.0	144.2
65°	140.7	138.1	133.7	129.8	127.6
67.5°	123.2	121.0	117.1	114.0	112.2
70°	107.0	105.2	101.3	98.2	96.5
72.5°	90.3	88.6	86.4	83.3	82.0
75°	73.7	72.8	70.6	68.0	68.8
77.5°	58.7	57.0	56.1	54.8	53.5
80°	43.8	43.4	42.5	41.2	40.3
82.5°	29.8	29.8	29.4	27.6	27.6
85°	18.0	17.5	17.1	15.8	15.3
87.5°	7.9	7.0	6.1	4.8	4.4
90°	0.9	10.8	17.9	22.4	24.2
92.5°	22.4	18.8	21.5	23.3	24.2
95°	58.3	28.7	35.0	39.4	38.5
97.5°	104.9	31.4	45.7	48.4	49.3
100°	158.7	35.9	51.1	58.3	60.1
102.5°	217.8	216.0	52.9	62.7	65.4
105°	272.5	299.4	54.7	64.5	68.1
107.5°	336.2	358.6	56.5	66.3	69.9
110°	397.1	415.9	156.9	67.2	70.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	454.5	470.6	455.4	69.0	71.7
115°	515.4	530.7	553.1	138.0	73.5
117.5°	568.3	586.2	601.5	473.3	238.4
120°	627.5	640.9	657.1	667.8	546.8
122.5°	677.7	692.0	710.0	715.3	716.2
125°	728.8	740.4	757.5	763.7	766.4
127.5°	775.4	787.9	801.4	810.4	811.2
130°	819.3	833.7	843.5	853.4	852.5
132.5°	864.1	875.8	885.6	893.7	892.8
135°	901.8	916.1	924.2	933.2	931.4
137.5°	941.2	952.0	960.9	969.9	967.2
140°	979.8	986.9	996.8	1004.9	1000.4
142.5°	1012.0	1018.3	1030.0	1037.1	1032.7
145°	1046.1	1045.2	1060.4	1066.7	1062.2
147.5°	1075.7	1073.0	1088.2	1092.7	1089.1
150°	1104.4	1098.1	1112.4	1117.8	1113.3
152.5°	1128.6	1121.4	1134.8	1140.2	1134.0
155°	1151.9	1143.8	1154.6	1159.9	1152.8
157.5°	1170.7	1163.5	1171.6	1177.9	1170.7
160°	1186.8	1181.5	1186.8	1192.2	1185.9
162.5°	1201.2	1195.8	1200.3	1206.6	1198.5
165°	1213.7	1208.4	1211.0	1217.3	1211.0
167.5°	1223.6	1218.2	1220.9	1227.2	1219.1
170°	1231.7	1226.3	1228.1	1234.3	1226.3
172.5°	1237.0	1231.7	1233.5	1239.7	1231.7
175°	1241.5	1235.2	1237.0	1243.3	1234.3
177.5°	1243.3	1237.0	1237.9	1244.2	1236.1
180°	1238.8	1238.8	1238.8	1238.8	1238.8

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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	9.03	9.70	10.18	10.84	12.44	9.81	10.48	10.96	11.62	13.22
	3H	10.35	10.95	11.51	12.10	13.71	11.42	12.02	12.58	13.17	14.78
	4H	10.75	11.32	11.92	12.47	14.08	12.01	12.58	13.17	13.72	15.34
	6H	10.96	11.48	12.13	12.63	14.26	12.40	12.92	13.58	14.07	15.70
	8H	10.98	11.48	12.16	12.65	14.27	12.50	13.00	13.68	14.17	15.79
	12H	10.97	11.44	12.15	12.60	14.24	12.54	13.01	13.72	14.17	15.81
4H	2H	9.48	10.05	10.65	11.19	12.81	10.12	10.69	11.29	11.84	13.45
	3H	10.98	11.45	12.16	12.62	14.25	11.88	12.36	13.06	13.53	15.16
	4H	11.47	11.91	12.66	13.07	14.72	12.56	12.99	13.74	14.15	15.80
	6H	11.77	12.14	12.95	13.32	14.96	13.04	13.42	14.23	14.60	16.24
	8H	11.82	12.17	13.00	13.34	15.00	13.18	13.53	14.36	14.70	16.36
	12H	11.81	12.13	13.01	13.31	14.97	13.23	13.55	14.43	14.73	16.39
8H	4H	11.63	11.98	12.82	13.16	14.81	12.63	12.98	13.81	14.15	15.80
	6H	12.01	12.30	13.21	13.51	15.17	13.19	13.47	14.39	14.69	16.34
	8H	12.11	12.36	13.32	13.55	15.23	13.37	13.62	14.58	14.82	16.49
	12H	12.13	12.35	13.35	13.54	15.25	13.46	13.68	14.67	14.87	16.58
12H	4H	11.61	11.92	12.81	13.11	14.77	12.58	12.90	13.78	14.08	15.74
	6H	12.03	12.28	13.23	13.47	15.14	13.18	13.43	14.39	14.62	16.29
	8H	12.13	12.35	13.34	13.54	15.24	13.36	13.58	14.58	14.78	16.48