

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: P997890

Luminaire Tested: SA2XXDIP-B1005D330UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997890
REPORT IS A COMBINATION OF REPORTS P983627 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D330UB40-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

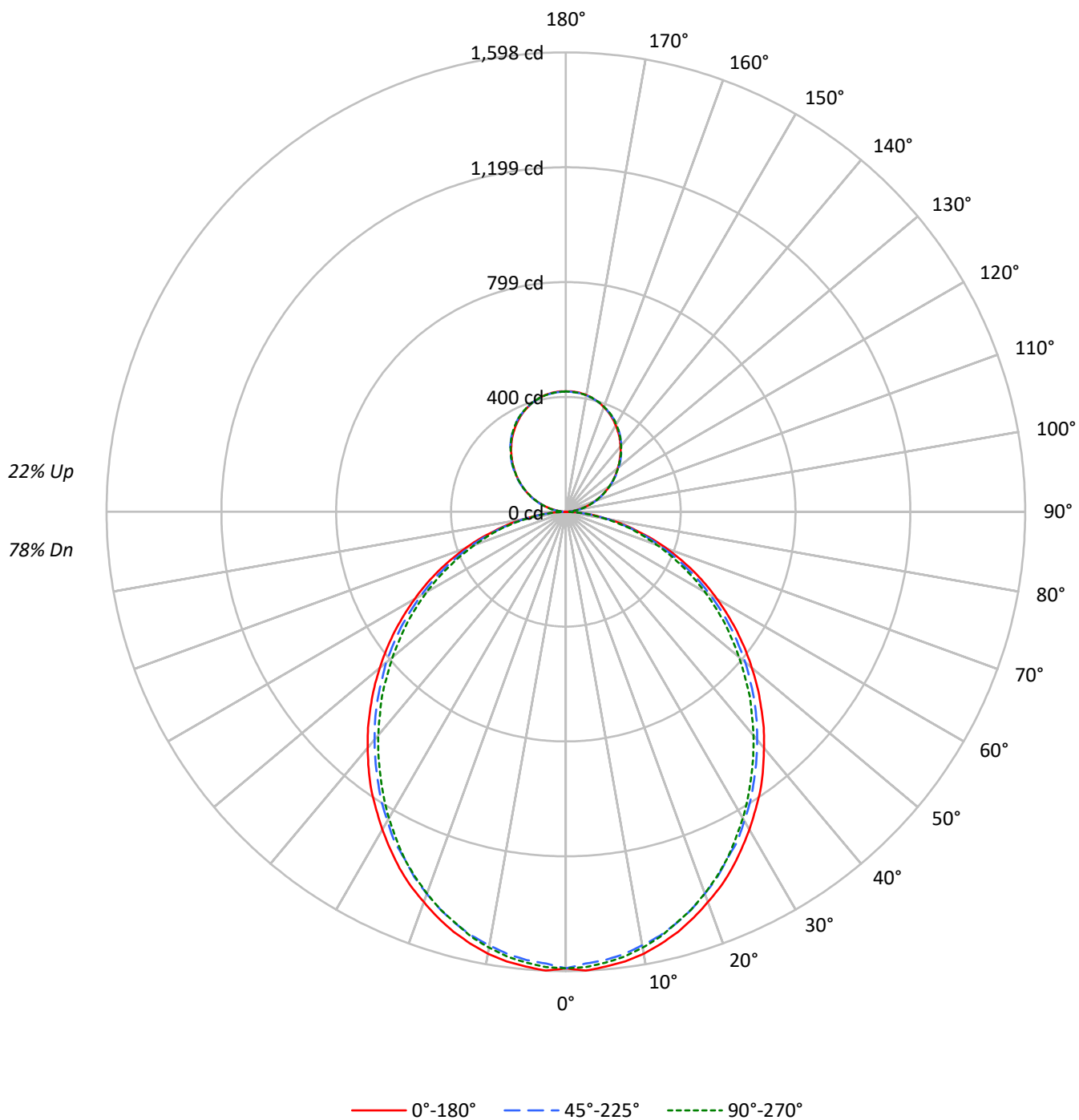
Lumens per Lamp: N/A
Luminaire Lumens: 5213.0 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 70.6
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	114	114	114	114	108	108	108	108	99	99	99	90	90	90	81	81	81
1	104	99	95	92	99	95	91	88	87	84	81	79	77	75	72	70	69
2	95	87	80	75	90	83	77	72	76	71	67	69	66	63	63	61	58
3	86	76	69	63	82	73	66	61	67	61	57	61	57	53	56	53	49
4	79	68	60	53	75	65	57	52	60	53	49	55	50	46	50	46	43
5	73	61	52	46	69	58	50	45	54	47	42	49	44	40	45	41	37
6	67	55	46	40	64	52	45	39	48	42	37	45	39	35	41	36	33
7	62	49	41	35	59	48	40	34	44	37	33	41	35	31	38	33	29
8	58	45	37	31	55	43	36	31	40	34	29	37	32	28	35	30	26
9	54	41	33	28	52	40	33	28	37	31	26	34	29	25	32	27	24
10	51	38	31	25	48	37	30	25	34	28	24	32	27	23	30	25	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25142	25142	25142
5°	25183	23965	23795
10°	24979	22873	22420
15°	24613	21773	20971
20°	24118	20575	19601
25°	23625	19325	18232
30°	23005	18152	16796
35°	22421	16912	15385
40°	21698	15689	14051
45°	20979	14475	12743
50°	20197	13242	11386
55°	19372	11922	10101
60°	18443	10493	8766
65°	17426	9040	7360
70°	16136	7451	5944
75°	14354	5744	4590
80°	12191	3903	2954
85°	8843	1817	1258

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 20979 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.5	2.9
10°-20°	420.6	8.1
20°-30°	618.1	11.9
30°-40°	717.9	13.8
40°-50°	717.0	13.8
50°-60°	625.2	12.0
60°-70°	462.2	8.9
70°-80°	261.5	5.0
80°-90°	70.2	1.3
90°-100°	25.9	0.5
100°-110°	82.3	1.6
110°-120°	140.9	2.7
120°-130°	185.3	3.6
130°-140°	208.0	4.0
140°-150°	204.0	3.9
150°-160°	171.1	3.3
160°-170°	113.5	2.2
170°-180°	39.7	0.8
0°-30°	1188.2	22.8
0°-40°	1906.1	36.6
0°-60°	3248.3	62.3
0°-90°	4042.2	77.5
90°-120°	249.2	4.8
90°-150°	846.5	16.2
90°-180°	1171.0	22.5
0°-180°	5213.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1588	1588	1588	1588	1588	
5°	1588	1582	1565	1578	1575	151
15°	1512	1503	1483	1489	1481	426
25°	1368	1356	1330	1333	1330	630
35°	1181	1165	1141	1132	1124	737
45°	961	950	927	910	904	741
55°	727	718	700	681	674	650
65°	490	481	466	452	444	485
75°	257	254	246	237	240	274
85°	63	61	60	55	54	70
90°	0	5	12	12	12	5
95°	18	22	23	23	22	21
105°	76	77	78	78	78	80
115°	141	144	143	142	141	140
125°	206	209	208	207	206	184
135°	266	270	271	270	269	206
145°	323	326	328	328	326	202
155°	369	370	371	373	372	170
165°	402	402	402	404	402	113
175°	418	417	416	419	417	40
180°	419	419	419	419	419	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1588.3	1588.3	1588.3	1588.3	1588.3
2.5°	1597.5	1589.9	1573.1	1588.3	1585.3
5°	1588.3	1582.2	1565.4	1577.7	1574.6
7.5°	1577.7	1568.5	1551.7	1563.9	1560.9
10°	1560.9	1550.2	1531.8	1544.1	1539.5
12.5°	1537.9	1528.8	1510.5	1518.1	1515.0
15°	1512.0	1502.8	1483.0	1489.1	1481.4
17.5°	1479.9	1470.7	1450.9	1458.5	1450.9
20°	1444.8	1435.6	1414.2	1418.8	1412.7
22.5°	1409.7	1395.9	1376.1	1376.1	1373.0
25°	1368.4	1356.2	1330.2	1333.3	1330.2
27.5°	1322.6	1311.9	1292.1	1287.5	1279.8
30°	1276.8	1264.6	1241.7	1237.1	1231.0
32.5°	1227.9	1218.7	1194.3	1185.1	1179.0
35°	1180.6	1165.3	1140.9	1131.7	1124.1
37.5°	1127.1	1113.4	1088.9	1078.2	1070.6
40°	1072.1	1059.9	1035.5	1021.7	1015.6
42.5°	1018.7	1006.5	982.0	966.8	957.6
45°	960.6	950.0	927.0	910.2	904.1
47.5°	904.1	893.4	869.0	852.2	843.0
50°	844.6	836.9	815.6	794.2	786.5
52.5°	786.5	775.8	756.0	739.2	728.5
55°	727.0	717.8	699.5	681.2	673.5
57.5°	667.4	659.8	639.9	621.6	615.5
60°	607.8	601.7	580.4	563.6	559.0
62.5°	549.8	539.1	523.8	508.6	502.5
65°	490.2	481.1	465.8	452.1	444.4
67.5°	429.2	421.5	407.8	397.1	391.0
70°	372.6	366.5	352.8	342.1	336.0
72.5°	314.6	308.5	300.9	290.2	285.6
75°	256.6	253.5	245.9	236.7	239.8
77.5°	204.7	198.5	195.5	190.9	186.3
80°	152.7	151.2	148.1	143.6	140.5
82.5°	103.9	103.9	102.3	96.2	96.2
85°	62.6	61.1	59.6	55.0	53.5
87.5°	27.5	24.4	21.4	16.8	15.3
90°	0.4	4.6	12.4	11.7	12.0
92.5°	7.8	10.6	11.0	11.3	11.3
95°	18.4	21.9	22.6	22.6	21.9
97.5°	30.7	33.9	35.3	35.3	35.3
100°	44.9	47.7	48.8	48.8	48.4
102.5°	59.7	61.8	63.3	63.6	63.3
105°	76.0	77.0	77.7	78.5	78.5
107.5°	92.2	93.6	93.6	94.0	92.2
110°	107.8	109.9	109.9	109.9	108.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	124.7	126.9	126.5	125.5	124.7
115°	141.4	143.5	142.8	142.4	141.4
117.5°	158.0	160.8	159.0	158.0	156.9
120°	174.6	177.4	174.6	174.6	173.5
122.5°	189.8	193.3	191.5	190.5	189.8
125°	205.7	208.9	207.8	206.7	206.4
127.5°	221.2	225.1	223.7	222.3	221.2
130°	235.7	240.3	239.6	238.9	237.5
132.5°	252.0	255.5	255.9	254.1	253.0
135°	266.1	270.0	270.7	270.3	269.3
137.5°	281.7	284.8	285.5	285.2	283.8
140°	295.4	298.6	300.4	300.4	299.0
142.5°	309.6	312.8	313.8	314.2	312.8
145°	323.0	325.5	327.6	328.0	326.5
147.5°	335.0	338.2	339.6	340.3	338.9
150°	347.4	349.5	350.9	352.0	350.9
152.5°	358.3	360.5	362.2	363.6	362.2
155°	369.3	370.4	371.4	373.2	372.1
157.5°	378.8	379.5	380.3	382.7	381.0
160°	387.3	388.0	388.4	390.5	389.1
162.5°	395.1	395.1	395.4	397.9	396.2
165°	401.8	401.5	401.5	403.9	402.2
167.5°	407.8	406.8	406.8	409.2	407.5
170°	412.4	411.4	411.0	413.5	411.4
172.5°	415.6	414.5	414.2	416.7	414.5
175°	418.1	417.0	416.3	418.8	416.7
177.5°	419.5	418.4	417.7	419.8	417.7
180°	418.8	418.8	418.8	418.8	418.8

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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	18.67	19.85	19.35	20.55	21.36	19.45	20.63	20.13	21.33	22.14
	3H	20.03	21.09	20.72	21.80	22.65	21.10	22.16	21.80	22.87	23.72
	4H	20.45	21.45	21.16	22.17	23.03	21.71	22.71	22.42	23.43	24.29
	6H	20.69	21.61	21.41	22.34	23.21	22.13	23.05	22.85	23.78	24.65
	8H	20.73	21.61	21.46	22.35	23.23	22.25	23.13	22.98	23.87	24.75
	12H	20.73	21.57	21.47	22.31	23.21	22.30	23.14	23.04	23.88	24.79
4H	2H	19.18	20.18	19.89	20.90	21.76	19.82	20.82	20.54	21.54	22.40
	3H	20.72	21.56	21.45	22.31	23.19	21.63	22.47	22.36	23.22	24.10
	4H	21.24	22.00	21.99	22.76	23.66	22.32	23.08	23.07	23.84	24.75
	6H	21.56	22.22	22.32	23.00	23.92	22.84	23.50	23.60	24.28	25.19
	8H	21.63	22.24	22.39	23.02	23.95	22.99	23.60	23.75	24.38	25.31
	12H	21.64	22.20	22.43	23.00	23.93	23.07	23.62	23.85	24.42	25.35
8H	4H	21.44	22.06	22.21	22.83	23.76	22.44	23.05	23.20	23.83	24.76
	6H	21.84	22.35	22.64	23.17	24.10	23.02	23.53	23.81	24.35	25.28
	8H	21.95	22.40	22.75	23.22	24.16	23.21	23.66	24.02	24.48	25.43
	12H	21.99	22.39	22.80	23.20	24.20	23.32	23.72	24.13	24.53	25.54
12H	4H	21.44	21.99	22.23	22.79	23.73	22.41	22.97	23.20	23.77	24.70
	6H	21.86	22.32	22.67	23.13	24.08	23.01	23.47	23.82	24.28	25.23
	8H	21.99	22.39	22.80	23.20	24.20	23.22	23.62	24.03	24.43	25.44