

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: P997847

Luminaire Tested: SA2XXDIP-B1005D330UB27-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997847
REPORT IS A COMBINATION OF REPORTS P983584 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D330UB27-4F0-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

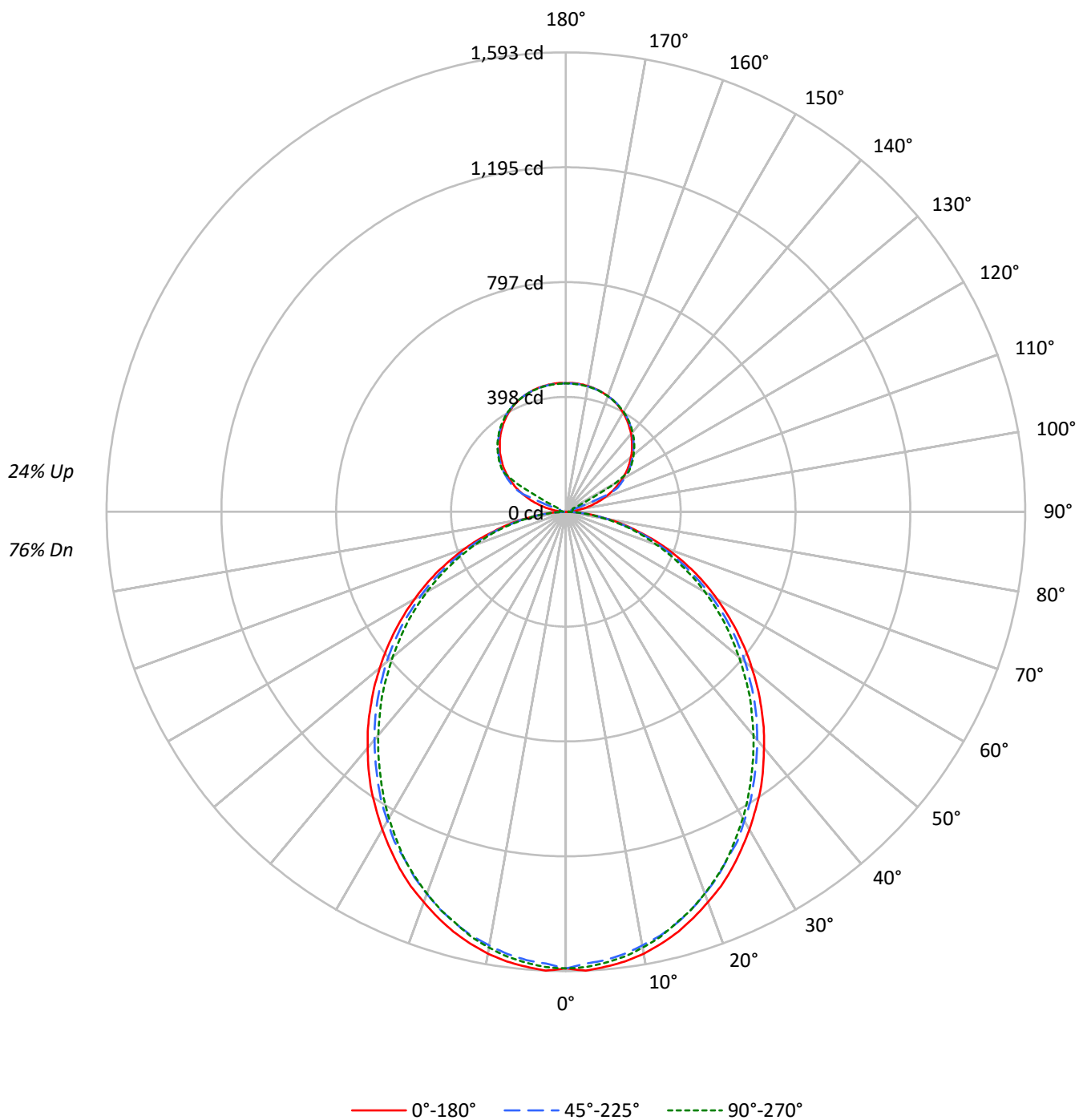
Lumens per Lamp: N/A
Luminaire Lumens: 5336.0 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	113	113	113	113	108	108	108	108	98	98	98	88	88	88	80	80	80
1	104	99	95	91	98	94	91	88	86	83	80	78	76	74	70	69	67
2	94	87	80	75	89	83	77	72	75	71	67	68	65	62	62	59	57
3	86	76	68	62	82	73	66	60	66	61	56	60	56	52	55	51	48
4	79	68	59	53	75	65	57	51	59	53	48	54	49	45	49	45	42
5	73	60	52	46	69	58	50	44	53	47	42	49	43	39	44	40	36
6	67	54	46	40	63	52	44	39	48	41	36	44	38	34	40	36	32
7	62	49	41	35	59	47	40	34	44	37	32	40	35	30	37	32	29
8	58	45	37	31	55	43	36	30	40	33	29	37	31	27	34	29	26
9	54	41	33	28	51	40	32	27	37	30	26	34	28	25	31	27	23
10	50	38	30	25	48	36	29	25	34	28	23	31	26	22	29	24	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25067	25067	25067
5°	25108	23894	23724
10°	24904	22805	22353
15°	24540	21709	20909
20°	24047	20514	19542
25°	23556	19269	18178
30°	22937	18098	16746
35°	22355	16861	15339
40°	21634	15642	14009
45°	20918	14433	12705
50°	20138	13201	11353
55°	19313	11886	10071
60°	18389	10461	8739
65°	17377	9013	7339
70°	16089	7428	5926
75°	14310	5728	4576
80°	12159	3892	2945
85°	8814	1811	1253

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 20918 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.0	2.8
10°-20°	419.4	7.9
20°-30°	616.3	11.5
30°-40°	715.8	13.4
40°-50°	714.9	13.4
50°-60°	623.3	11.7
60°-70°	460.8	8.6
70°-80°	260.7	4.9
80°-90°	69.6	1.3
90°-100°	14.7	0.3
100°-110°	54.8	1.0
110°-120°	145.3	2.7
120°-130°	240.9	4.5
130°-140°	255.9	4.8
140°-150°	237.8	4.5
150°-160°	191.2	3.6
160°-170°	123.2	2.3
170°-180°	42.4	0.8
0°-30°	1184.7	22.2
0°-40°	1900.5	35.6
0°-60°	3238.7	60.7
0°-90°	4029.8	75.5
90°-120°	214.7	4.0
90°-150°	949.4	17.8
90°-180°	1306.0	24.5
0°-180°	5336.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1584	1584	1584	1584	1584	
5°	1584	1578	1561	1573	1570	150
15°	1508	1498	1479	1485	1477	425
25°	1364	1352	1326	1329	1326	628
35°	1177	1162	1138	1128	1121	735
45°	958	947	924	908	901	739
55°	725	716	697	679	672	648
65°	489	480	464	451	443	483
75°	256	253	245	236	239	273
85°	62	61	59	55	53	70
90°	0	4	6	8	9	5
95°	21	10	13	14	14	25
105°	98	108	20	23	24	105
115°	185	191	199	50	26	183
125°	262	266	272	275	276	234
135°	324	330	332	336	335	251
145°	376	376	381	384	382	235
155°	414	411	415	417	415	191
165°	436	435	436	438	436	123
175°	446	444	445	447	444	42
180°	446	446	446	446	446	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1583.6	1583.6	1583.6	1583.6	1583.6
2.5°	1592.8	1585.1	1568.4	1583.6	1580.6
5°	1583.6	1577.5	1560.8	1573.0	1569.9
7.5°	1573.0	1563.8	1547.1	1559.3	1556.2
10°	1556.2	1545.6	1527.3	1539.5	1534.9
12.5°	1533.4	1524.2	1506.0	1513.6	1510.5
15°	1507.5	1498.4	1478.6	1484.7	1477.0
17.5°	1475.5	1466.4	1446.6	1454.2	1446.6
20°	1440.5	1431.4	1410.0	1414.6	1408.5
22.5°	1405.5	1391.8	1372.0	1372.0	1368.9
25°	1364.4	1352.2	1326.3	1329.3	1326.3
27.5°	1318.7	1308.0	1288.2	1283.7	1276.0
30°	1273.0	1260.8	1238.0	1233.4	1227.3
32.5°	1224.3	1215.1	1190.8	1181.6	1175.5
35°	1177.1	1161.8	1137.5	1128.3	1120.7
37.5°	1123.8	1110.1	1085.7	1075.0	1067.4
40°	1068.9	1056.8	1032.4	1018.7	1012.6
42.5°	1015.7	1003.5	979.1	963.9	954.7
45°	957.8	947.1	924.3	907.5	901.4
47.5°	901.4	890.8	866.4	849.7	840.5
50°	842.1	834.4	813.1	791.8	784.2
52.5°	784.2	773.5	753.7	737.0	726.3
55°	724.8	715.7	697.4	679.1	671.5
57.5°	665.4	657.8	638.0	619.7	613.7
60°	606.0	600.0	578.6	561.9	557.3
62.5°	548.2	537.5	522.3	507.1	501.0
65°	488.8	479.7	464.4	450.7	443.1
67.5°	427.9	420.3	406.6	395.9	389.8
70°	371.5	365.5	351.7	341.1	335.0
72.5°	313.7	307.6	300.0	289.3	284.7
75°	255.8	252.8	245.2	236.0	239.1
77.5°	204.0	198.0	194.9	190.3	185.8
80°	152.3	150.7	147.7	143.1	140.1
82.5°	103.5	103.5	102.0	95.9	95.9
85°	62.4	60.9	59.4	54.8	53.3
87.5°	27.4	24.4	21.3	16.7	15.2
90°	0.3	3.9	6.4	8.1	8.7
92.5°	8.1	6.8	7.7	8.4	8.7
95°	21.0	10.3	12.6	14.2	13.9
97.5°	37.7	11.3	16.4	17.4	17.7
100°	57.1	12.9	18.4	21.0	21.6
102.5°	78.3	77.7	19.0	22.6	23.5
105°	98.0	107.7	19.7	23.2	24.5
107.5°	120.9	129.0	20.3	23.9	25.1
110°	142.8	149.6	56.4	24.2	25.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	163.5	169.3	163.8	24.8	25.8
115°	185.4	190.9	198.9	49.6	26.4
117.5°	204.4	210.8	216.3	170.2	85.8
120°	225.7	230.5	236.3	240.2	196.7
122.5°	243.7	248.9	255.3	257.3	257.6
125°	262.1	266.3	272.4	274.7	275.7
127.5°	278.9	283.4	288.2	291.4	291.8
130°	294.7	299.8	303.4	306.9	306.6
132.5°	310.8	315.0	318.5	321.4	321.1
135°	324.3	329.5	332.4	335.6	335.0
137.5°	338.5	342.4	345.6	348.8	347.9
140°	352.4	355.0	358.5	361.4	359.8
142.5°	364.0	366.2	370.4	373.0	371.4
145°	376.2	375.9	381.4	383.7	382.0
147.5°	386.9	385.9	391.4	393.0	391.7
150°	397.2	394.9	400.1	402.0	400.4
152.5°	405.9	403.3	408.2	410.1	407.8
155°	414.3	411.4	415.3	417.2	414.6
157.5°	421.1	418.5	421.4	423.6	421.1
160°	426.9	424.9	426.9	428.8	426.5
162.5°	432.0	430.1	431.7	434.0	431.0
165°	436.5	434.6	435.6	437.8	435.6
167.5°	440.1	438.1	439.1	441.4	438.5
170°	443.0	441.0	441.7	443.9	441.0
172.5°	444.9	443.0	443.6	445.9	443.0
175°	446.5	444.3	444.9	447.2	443.9
177.5°	447.2	444.9	445.2	447.5	444.6
180°	445.6	445.6	445.6	445.6	445.6

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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	18.51	19.66	19.22	20.38	21.24	19.30	20.44	20.00	21.17	22.02
	3H	19.87	20.91	20.59	21.64	22.52	20.94	21.98	21.66	22.71	23.59
	4H	20.29	21.26	21.02	22.01	22.90	21.55	22.52	22.28	23.26	24.16
	6H	20.52	21.42	21.27	22.18	23.09	21.97	22.87	22.71	23.62	24.53
	8H	20.56	21.42	21.32	22.19	23.11	22.08	22.94	22.84	23.71	24.63
	12H	20.56	21.38	21.33	22.15	23.09	22.14	22.96	22.90	23.72	24.66
4H	2H	19.02	19.99	19.75	20.73	21.63	19.66	20.63	20.40	21.38	22.27
	3H	20.56	21.37	21.31	22.15	23.07	21.46	22.28	22.22	23.06	23.97
	4H	21.08	21.82	21.84	22.60	23.54	22.16	22.90	22.92	23.68	24.62
	6H	21.40	22.04	22.18	22.84	23.79	22.67	23.31	23.45	24.12	25.07
	8H	21.46	22.06	22.25	22.86	23.82	22.82	23.42	23.61	24.22	25.18
	12H	21.47	22.01	22.28	22.83	23.80	22.90	23.44	23.70	24.26	25.23
8H	4H	21.27	21.87	22.06	22.67	23.64	22.27	22.87	23.05	23.67	24.63
	6H	21.67	22.17	22.49	23.01	23.97	22.85	23.35	23.66	24.19	25.15
	8H	21.78	22.22	22.60	23.06	24.04	23.04	23.48	23.87	24.32	25.30
	12H	21.82	22.21	22.65	23.04	24.08	23.15	23.54	23.98	24.37	25.41
12H	4H	21.27	21.81	22.08	22.63	23.60	22.24	22.78	23.05	23.61	24.58
	6H	21.69	22.13	22.52	22.97	23.95	22.84	23.29	23.67	24.12	25.11
	8H	21.82	22.21	22.65	23.04	24.08	23.05	23.44	23.88	24.27	25.31