

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: P999060

Luminaire Tested: SA2XXDIP-B865D330UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P999060
REPORT IS A COMBINATION OF REPORTS P984809 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B865D330UB30-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

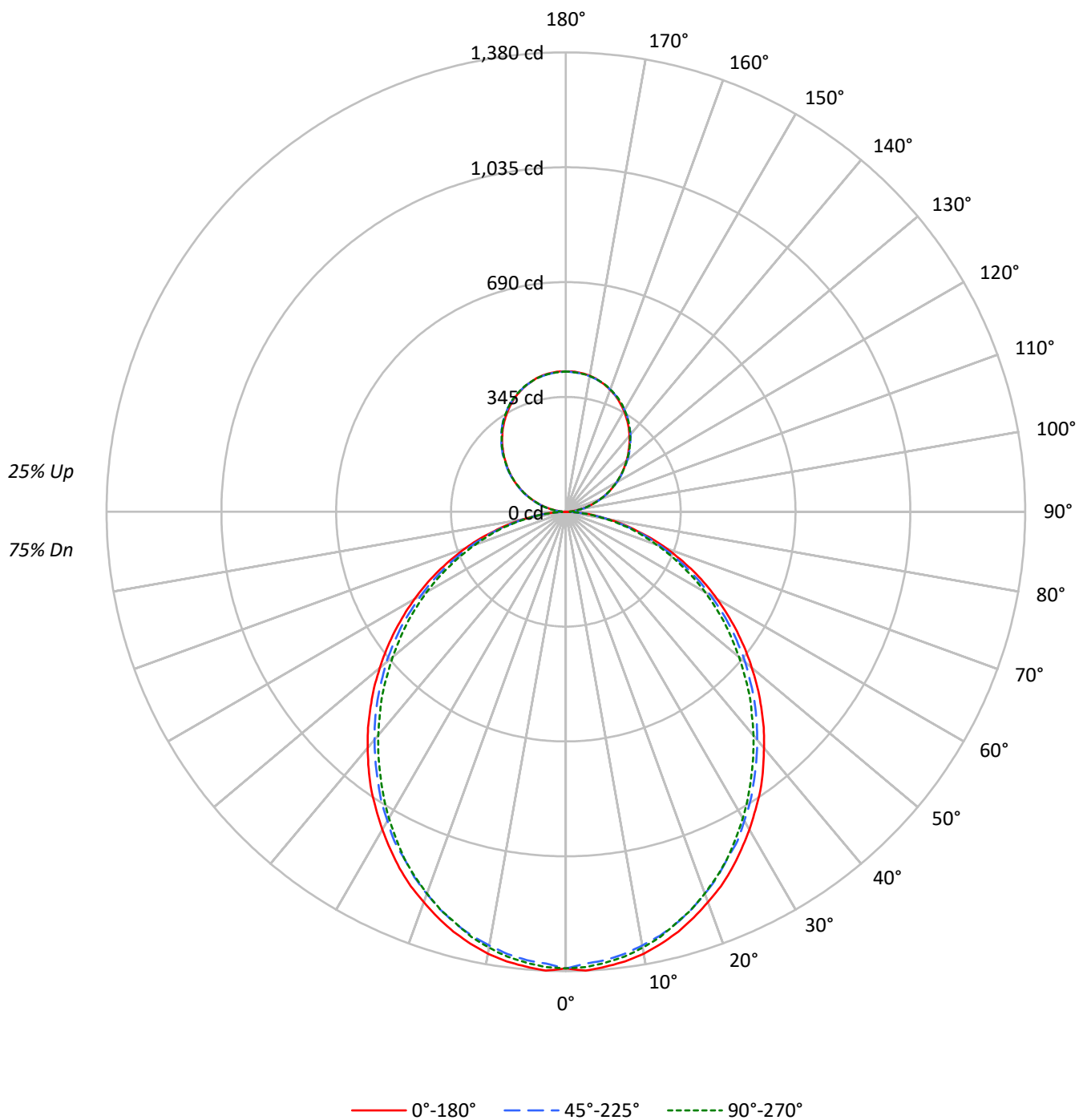
Lumens per Lamp: N/A
Luminaire Lumens: 4669.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 56.1
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	107	107	107	107	97	97	97	88	88	88	79	79	79
1	103	99	95	91	98	94	91	87	85	83	80	77	75	73	70	68	67
2	94	86	80	75	89	82	77	72	75	70	66	68	64	61	61	59	56
3	86	76	68	62	81	73	66	60	66	60	56	60	56	52	54	51	48
4	79	67	59	53	75	64	57	51	59	53	48	54	49	44	49	45	41
5	72	60	52	45	69	58	50	44	53	46	41	48	43	39	44	40	36
6	67	54	46	40	63	52	44	39	48	41	36	44	38	34	40	35	32
7	62	49	41	35	59	47	39	34	43	37	32	40	34	30	36	32	28
8	58	45	37	31	55	43	35	30	40	33	29	36	31	27	34	29	25
9	54	41	33	28	51	39	32	27	36	30	26	34	28	24	31	26	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°	21715	21715	21715
5°	21750	20698	20551
10°	21572	19755	19363
15°	21257	18804	18112
20°	20830	17770	16928
25°	20403	16691	15747
30°	19868	15677	14505
35°	19364	14605	13287
40°	18739	13549	12135
45°	18121	12501	11007
50°	17443	11436	9834
55°	16728	10296	8724
60°	15931	9062	7571
65°	15052	7808	6357
70°	13936	6435	5134
75°	12396	4961	3964
80°	10531	3370	2550
85°	7642	1567	1086

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18121 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	2.8
10°-20°	363.3	7.8
20°-30°	533.8	11.4
30°-40°	620.0	13.3
40°-50°	619.2	13.3
50°-60°	540.0	11.6
60°-70°	399.1	8.5
70°-80°	225.8	4.8
80°-90°	60.8	1.3
90°-100°	26.1	0.6
100°-110°	82.8	1.8
110°-120°	141.8	3.0
120°-130°	186.4	4.0
130°-140°	209.3	4.5
140°-150°	205.2	4.4
150°-160°	172.1	3.7
160°-170°	114.2	2.4
170°-180°	39.9	0.9
0°-30°	1026.2	22.0
0°-40°	1646.2	35.3
0°-60°	2805.4	60.1
0°-90°	3491.2	74.8
90°-120°	250.7	5.4
90°-150°	851.6	18.2
90°-180°	1178.0	25.2
0°-180°	4669.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1372	1372	1372	1372	1372	
5°	1372	1366	1352	1362	1360	130
15°	1306	1298	1281	1286	1279	368
25°	1182	1171	1149	1152	1149	544
35°	1020	1006	985	977	971	637
45°	830	820	801	786	781	640
55°	628	620	604	588	582	561
65°	423	416	402	390	384	419
75°	222	219	212	204	207	236
85°	54	53	51	48	46	60
90°	0	5	12	12	12	4
95°	18	22	23	23	22	21
105°	76	78	78	79	79	81
115°	142	144	144	143	142	141
125°	207	210	209	208	208	185
135°	268	272	272	272	271	207
145°	325	327	330	330	328	203
155°	372	373	374	375	374	171
165°	404	404	404	406	405	114
175°	421	420	419	421	419	40
180°	421	421	421	421	421	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1371.8	1371.8	1371.8	1371.8	1371.8
2.5°	1379.7	1373.1	1358.6	1371.8	1369.1
5°	1371.8	1366.5	1352.0	1362.5	1359.9
7.5°	1362.5	1354.6	1340.1	1350.7	1348.0
10°	1348.0	1338.8	1323.0	1333.5	1329.6
12.5°	1328.2	1320.3	1304.5	1311.1	1308.5
15°	1305.8	1297.9	1280.8	1286.0	1279.4
17.5°	1278.1	1270.2	1253.1	1259.7	1253.1
20°	1247.8	1239.9	1221.4	1225.4	1220.1
22.5°	1217.4	1205.6	1188.4	1188.4	1185.8
25°	1181.8	1171.3	1148.9	1151.5	1148.9
27.5°	1142.3	1133.0	1115.9	1111.9	1105.3
30°	1102.7	1092.1	1072.4	1068.4	1063.1
32.5°	1060.5	1052.6	1031.5	1023.6	1018.3
35°	1019.6	1006.4	985.3	977.4	970.8
37.5°	973.4	961.6	940.5	931.2	924.6
40°	925.9	915.4	894.3	882.4	877.1
42.5°	879.8	869.2	848.1	834.9	827.0
45°	829.7	820.4	800.6	786.1	780.9
47.5°	780.9	771.6	750.5	736.0	728.1
50°	729.4	722.8	704.4	685.9	679.3
52.5°	679.3	670.1	652.9	638.4	629.2
55°	627.8	619.9	604.1	588.3	581.7
57.5°	576.4	569.8	552.7	536.8	531.6
60°	525.0	519.7	501.2	486.7	482.8
62.5°	474.8	465.6	452.4	439.2	434.0
65°	423.4	415.5	402.3	390.4	383.8
67.5°	370.6	364.0	352.2	342.9	337.7
70°	321.8	316.6	304.7	295.5	290.2
72.5°	271.7	266.4	259.8	250.6	246.7
75°	221.6	219.0	212.4	204.4	207.1
77.5°	176.7	171.5	168.8	164.9	160.9
80°	131.9	130.6	127.9	124.0	121.3
82.5°	89.7	89.7	88.4	83.1	83.1
85°	54.1	52.8	51.4	47.5	46.2
87.5°	23.7	21.1	18.5	14.5	13.2
90°	0.4	4.6	12.4	11.7	12.1
92.5°	7.8	10.7	11.0	11.4	11.4
95°	18.5	22.0	22.8	22.8	22.0
97.5°	30.9	34.1	35.6	35.6	35.6
100°	45.1	48.0	49.1	49.1	48.7
102.5°	60.1	62.2	63.6	64.0	63.6
105°	76.4	77.5	78.2	78.9	78.9
107.5°	92.8	94.2	94.2	94.6	92.8
110°	108.4	110.6	110.6	110.6	109.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	125.5	127.6	127.3	126.2	125.5
115°	142.2	144.3	143.6	143.3	142.2
117.5°	158.9	161.8	160.0	158.9	157.8
120°	175.6	178.5	175.6	175.6	174.6
122.5°	190.9	194.5	192.7	191.6	190.9
125°	206.9	210.1	209.0	208.0	207.6
127.5°	222.5	226.5	225.0	223.6	222.5
130°	237.1	241.7	241.0	240.3	238.9
132.5°	253.5	257.0	257.4	255.6	254.5
135°	267.7	271.6	272.3	272.0	270.9
137.5°	283.3	286.5	287.2	286.9	285.5
140°	297.2	300.4	302.2	302.2	300.8
142.5°	311.4	314.6	315.7	316.0	314.6
145°	324.9	327.4	329.6	329.9	328.5
147.5°	337.0	340.2	341.6	342.4	340.9
150°	349.5	351.6	353.0	354.1	353.0
152.5°	360.5	362.6	364.4	365.8	364.4
155°	371.5	372.6	373.6	375.4	374.3
157.5°	381.1	381.8	382.5	385.0	383.2
160°	389.6	390.3	390.7	392.8	391.4
162.5°	397.5	397.5	397.8	400.3	398.5
165°	404.2	403.9	403.9	406.3	404.6
167.5°	410.3	409.2	409.2	411.7	409.9
170°	414.9	413.8	413.5	415.9	413.8
172.5°	418.1	417.0	416.7	419.1	417.0
175°	420.6	419.5	418.8	421.3	419.1
177.5°	422.0	420.9	420.2	422.3	420.2
180°	421.3	421.3	421.3	421.3	421.3

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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	17.96	19.10	18.67	19.83	20.70	18.74	19.88	19.45	20.61	21.48
	3H	19.32	20.34	20.04	21.08	21.98	20.39	21.41	21.11	22.15	23.05
	4H	19.73	20.70	20.48	21.45	22.36	20.99	21.96	21.73	22.71	23.62
	6H	19.97	20.86	20.72	21.62	22.54	21.41	22.30	22.16	23.06	23.99
	8H	20.00	20.85	20.77	21.63	22.56	21.52	22.37	22.29	23.15	24.08
	12H	20.01	20.82	20.78	21.59	22.54	21.58	22.39	22.35	23.16	24.12
4H	2H	18.46	19.43	19.21	20.18	21.09	19.10	20.07	19.85	20.82	21.73
	3H	20.00	20.81	20.76	21.60	22.52	20.91	21.72	21.67	22.50	23.43
	4H	20.52	21.25	21.29	22.04	23.00	21.60	22.33	22.37	23.12	24.08
	6H	20.84	21.47	21.63	22.29	23.25	22.11	22.75	22.90	23.56	24.52
	8H	20.90	21.50	21.70	22.30	23.28	22.26	22.86	23.06	23.66	24.64
	12H	20.91	21.45	21.73	22.28	23.26	22.34	22.87	23.15	23.70	24.68
8H	4H	20.72	21.31	21.51	22.12	23.10	21.71	22.30	22.50	23.11	24.09
	6H	21.11	21.60	21.94	22.45	23.43	22.29	22.78	23.11	23.63	24.61
	8H	21.22	21.66	22.05	22.50	23.50	22.48	22.92	23.32	23.77	24.76
	12H	21.26	21.65	22.10	22.49	23.54	22.59	22.98	23.43	23.82	24.87
12H	4H	20.71	21.25	21.53	22.08	23.06	21.69	22.22	22.50	23.05	24.03
	6H	21.13	21.57	21.97	22.42	23.41	22.28	22.72	23.12	23.57	24.56
	8H	21.26	21.64	22.10	22.48	23.53	22.49	22.88	23.33	23.72	24.77