

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: P997547

Luminaire Tested: SA2XXDP-B1005DB2750-4F0-XX-W2A-F_2700K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997547
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDP-B1005DB2750-4F0-XX-W2A-F_2700K
Description: Define 2 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

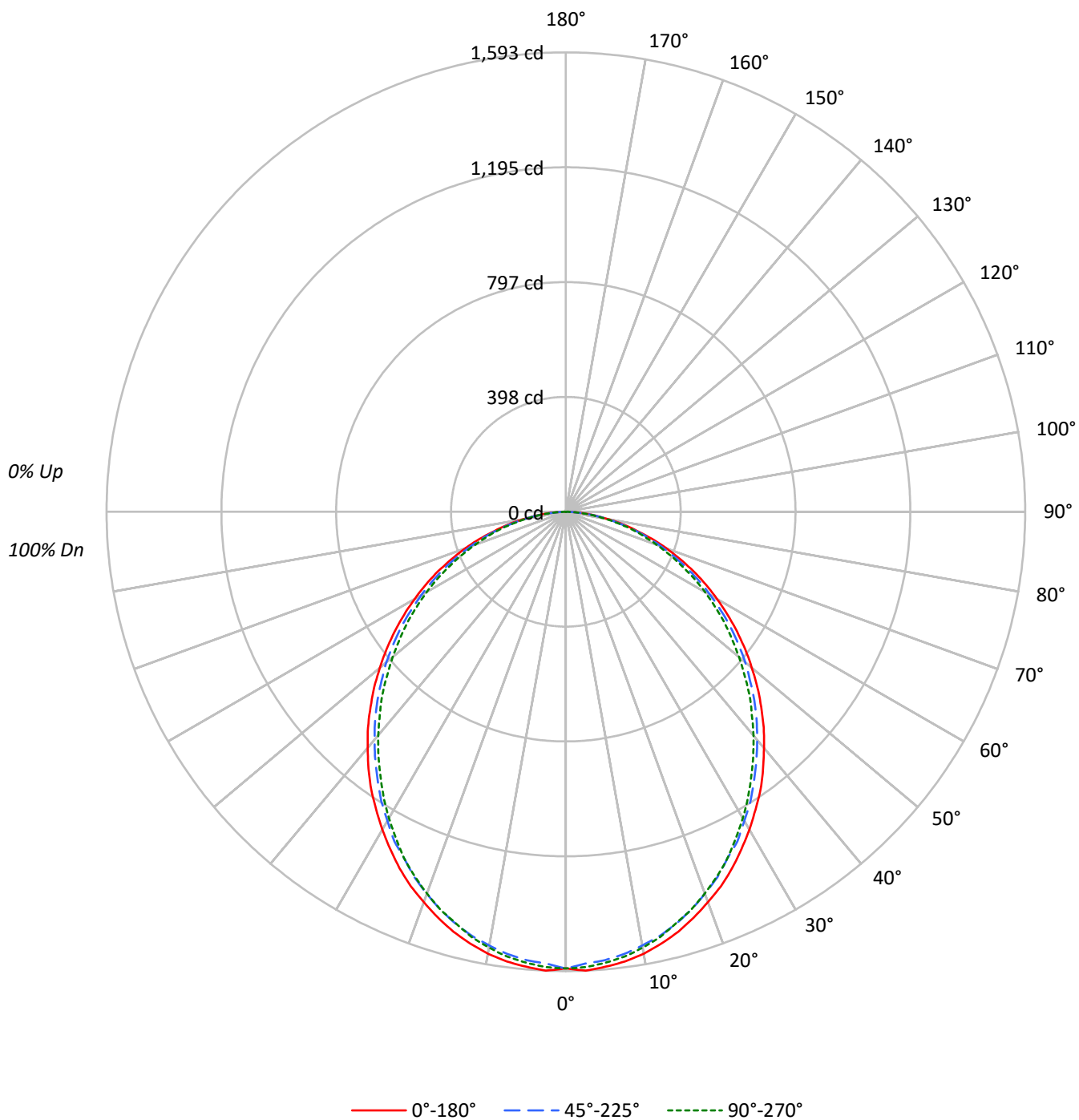
Lumens per Lamp: N/A
Luminaire Lumens: 4029.0 lumens
Efficiency: N/A
Efficacy: 65.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.3
Input Voltage (V): 120
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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71			
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51			
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39			
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35			
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31			
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28			
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25067	25067	25067
5°	25163	24801	24945
10°	25014	24549	24671
15°	24704	24231	24205
20°	24265	23752	23726
25°	23830	23165	23165
30°	23268	22628	22433
35°	22746	21981	21656
40°	22087	21333	20924
45°	21441	20691	20179
50°	20738	20023	19312
55°	20003	19247	18532
60°	19185	18318	17643
65°	18308	17394	16596
70°	17194	16277	15504
75°	15645	14996	14623
80°	13883	13464	12771
85°	11333	10788	9680

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 21441 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.0	3.7
10°-20°	419.4	10.4
20°-30°	616.3	15.3
30°-40°	715.8	17.8
40°-50°	714.9	17.7
50°-60°	623.3	15.5
60°-70°	460.8	11.4
70°-80°	260.7	6.5
80°-90°	68.8	1.7
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°	1184.7	29.4
0°-40°	1900.5	47.2
0°-60°	3238.7	80.4
0°-90°	4029.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4029.0	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	73
90°	0	0	0	0	0	

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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°	0.0	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	22.48	24.09	22.84	24.40	24.71	22.03	23.64	22.40	23.96	24.27
	3H	24.23	25.68	24.60	26.01	26.37	23.73	25.19	24.11	25.52	25.88
	4H	24.87	26.24	25.27	26.59	26.96	24.38	25.75	24.77	26.09	26.47
	6H	25.34	26.61	25.75	26.97	27.36	24.84	26.11	25.25	26.47	26.86
	8H	25.48	26.69	25.91	27.08	27.48	24.98	26.19	25.41	26.58	26.98
	12H	25.57	26.73	26.00	27.12	27.54	25.06	26.22	25.49	26.60	27.03
4H	2H	23.04	24.40	23.43	24.75	25.13	22.68	24.05	23.08	24.40	24.78
	3H	25.01	26.16	25.42	26.55	26.95	24.60	25.75	25.01	26.15	26.55
	4H	25.79	26.82	26.22	27.24	27.67	25.36	26.40	25.79	26.81	27.25
	6H	26.38	27.29	26.84	27.73	28.19	25.95	26.86	26.41	27.30	27.75
	8H	26.57	27.42	27.03	27.86	28.33	26.13	26.98	26.60	27.42	27.89
	12H	26.70	27.46	27.19	27.94	28.41	26.25	27.01	26.73	27.49	27.96
8H	4H	26.06	26.91	26.52	27.35	27.82	25.69	26.53	26.15	26.98	27.44
	6H	26.78	27.48	27.27	27.97	28.44	26.39	27.10	26.89	27.58	28.06
	8H	27.03	27.66	27.54	28.17	28.66	26.64	27.27	27.15	27.78	28.27
	12H	27.23	27.79	27.74	28.28	28.84	26.82	27.38	27.33	27.87	28.43
12H	4H	26.09	26.85	26.57	27.32	27.79	25.72	26.48	26.20	26.96	27.43
	6H	26.82	27.45	27.33	27.96	28.45	26.45	27.08	26.96	27.59	28.08
	8H	27.13	27.69	27.64	28.18	28.74	26.76	27.31	27.26	27.80	28.37