

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: P931470

Luminaire Tested: DFN2DS-TR4F0-050DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931470
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-TR4F0-050DS927-RLL
Description: 4 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

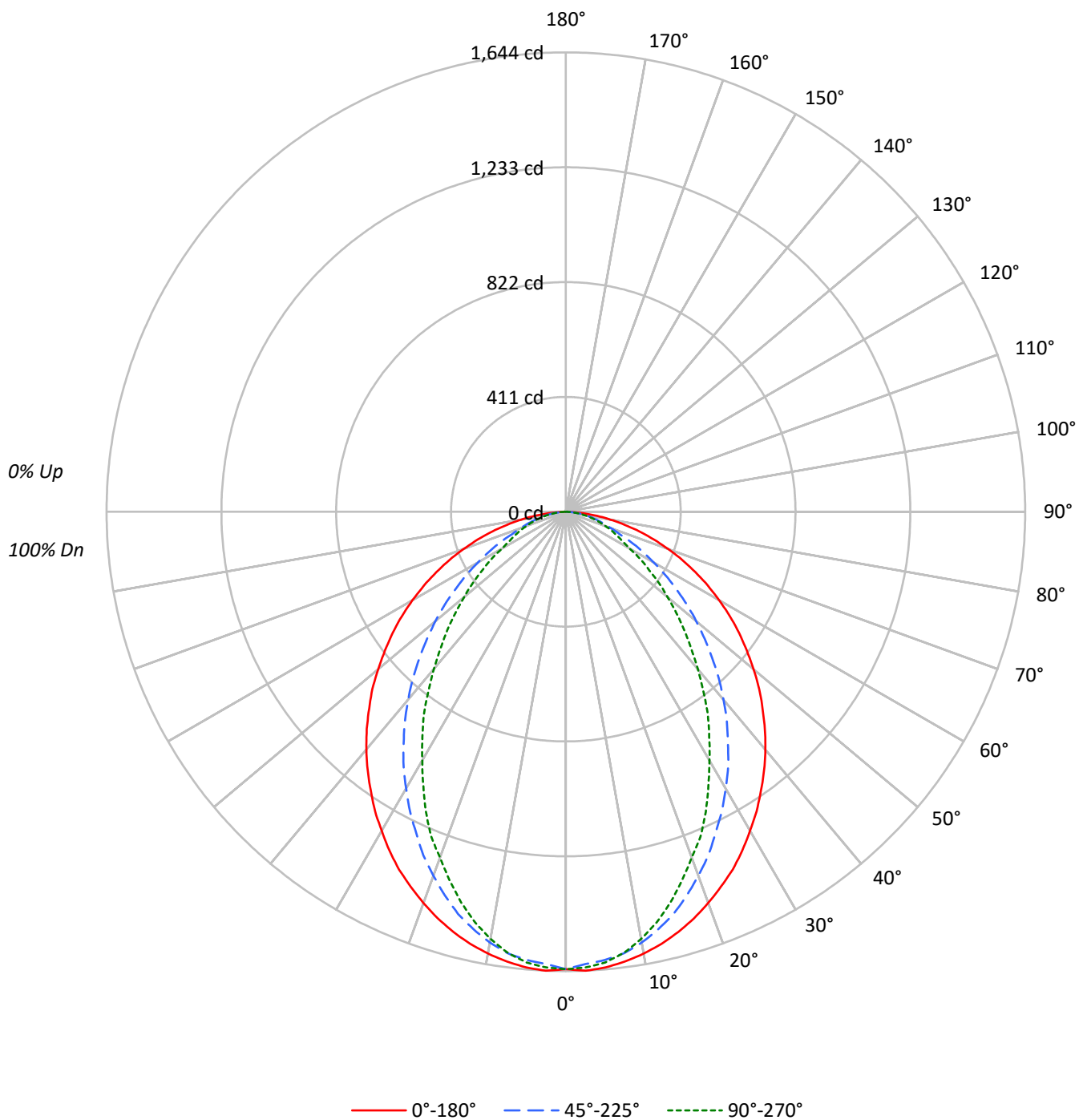
Lumens per Lamp: N/A
Luminaire Lumens: 3366.0 lumens
Efficiency: N/A
Efficacy: 69.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.96' x L: 3.43' x H: 0')
CIE Type: Direct

Input Watts (W): 48.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 0.064
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931470

CATALOG NUMBER: DFN2DS-TR4F0-050DS927-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P931470

CATALOG NUMBER: DFN2DS-TR4F0-050DS927-RLL

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1300	1300	1300
5°	1305	1284	1291
10°	1295	1263	1252
15°	1280	1226	1190
20°	1260	1172	1113
25°	1239	1111	1039
30°	1209	1049	943
35°	1181	981	859
40°	1152	911	762
45°	1118	832	674
50°	1084	752	588
55°	1048	667	505
60°	1007	576	419
65°	961	484	381
70°	905	399	351
75°	836	364	328
80°	738	325	298
85°	581	256	256

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1118 cd/sqm

TEST NUMBER: P931470

CATALOG NUMBER: DFN2DS-TR4F0-050DS927-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	4.6
10°-20°	421.1	12.5
20°-30°	591.2	17.6
30°-40°	644.4	19.1
40°-50°	592.3	17.6
50°-60°	465.2	13.8
60°-70°	302.8	9.0
70°-80°	155.9	4.6
80°-90°	39.8	1.2
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°	1165.7	34.6
0°-40°	1810.1	53.8
0°-60°	2867.6	85.2
0°-90°	3366.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3366.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1637	1637	1637	1637	1637	
5°	1637	1629	1610	1623	1619	155
15°	1557	1540	1490	1462	1447	439
25°	1413	1366	1268	1207	1185	650
35°	1218	1142	1012	918	886	762
45°	995	896	741	635	600	769
55°	757	641	481	392	364	676
65°	511	391	258	207	203	507
75°	272	169	118	108	107	288
85°	64	33	28	28	28	76
90°	0	0	0	0	0	

TEST NUMBER: P931470

CATALOG NUMBER: DFN2DS-TR4F0-050DS927-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1636.7	1636.7	1636.7	1636.7	1636.7
2.5°	1644.0	1636.7	1620.4	1635.2	1632.2
5°	1636.7	1629.3	1610.0	1623.3	1618.9
7.5°	1623.3	1614.5	1593.7	1599.6	1592.2
10°	1605.5	1595.2	1565.6	1561.1	1552.2
12.5°	1583.4	1570.1	1530.0	1521.2	1504.8
15°	1556.7	1540.4	1490.1	1462.0	1447.1
17.5°	1525.6	1501.9	1439.6	1407.1	1383.3
20°	1490.1	1460.4	1386.3	1349.4	1316.7
22.5°	1451.6	1417.4	1331.5	1281.2	1259.0
25°	1413.0	1365.6	1267.8	1207.2	1184.8
27.5°	1367.2	1316.7	1208.6	1139.0	1104.9
30°	1318.3	1261.9	1143.4	1067.9	1027.9
32.5°	1270.8	1202.7	1081.3	992.4	955.3
35°	1217.5	1142.0	1011.7	918.3	885.7
37.5°	1165.7	1084.2	946.5	844.2	807.3
40°	1110.9	1022.1	878.2	773.2	734.7
42.5°	1054.6	959.8	810.2	700.5	663.6
45°	995.4	896.1	740.6	635.3	599.8
47.5°	939.1	834.0	674.0	568.7	536.2
50°	876.9	771.7	608.8	506.5	475.5
52.5°	816.1	705.0	546.6	448.8	420.7
55°	756.8	641.3	481.3	392.5	364.4
57.5°	696.2	577.7	423.6	340.7	317.0
60°	633.9	515.4	362.8	287.4	263.7
62.5°	573.2	454.8	311.0	240.0	228.2
65°	511.0	391.0	257.7	207.4	202.9
67.5°	451.8	331.8	207.4	182.2	177.7
70°	389.6	274.0	171.8	157.0	151.0
72.5°	330.3	220.7	143.7	131.9	128.9
75°	272.5	168.8	118.5	108.1	106.7
77.5°	214.8	119.9	93.4	87.4	84.3
80°	161.4	85.9	71.0	65.2	65.2
82.5°	112.5	57.8	48.9	45.9	45.9
85°	63.7	32.6	28.1	28.1	28.1
87.5°	23.8	11.8	11.8	10.4	10.4
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931470

CATALOG NUMBER: DFN2DS-TR4F0-050DS927-RLL

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	12.15	13.67	12.51	13.98	14.30	8.11	9.63	8.47	9.94	10.26
	3H	13.91	15.28	14.29	15.61	15.97	9.37	10.74	9.75	11.07	11.43
	4H	14.58	15.86	14.98	16.21	16.59	9.87	11.16	10.27	11.50	11.88
	6H	15.07	16.25	15.48	16.62	17.01	10.25	11.44	10.67	11.80	12.20
	8H	15.23	16.36	15.66	16.75	17.15	10.38	11.51	10.81	11.90	12.30
	12H	15.34	16.41	15.77	16.80	17.23	10.46	11.54	10.89	11.92	12.35
4H	2H	12.25	13.53	12.65	13.88	14.26	8.80	10.08	9.20	10.43	10.81
	3H	14.18	15.25	14.60	15.65	16.05	10.25	11.31	10.66	11.71	12.11
	4H	14.93	15.89	15.37	16.31	16.74	10.85	11.80	11.28	12.22	12.66
	6H	15.53	16.36	15.98	16.80	17.26	11.33	12.17	11.79	12.61	13.07
	8H	15.74	16.52	16.20	16.96	17.43	11.50	12.27	11.96	12.72	13.18
	12H	15.89	16.59	16.38	17.07	17.54	11.61	12.31	12.09	12.79	13.26
8H	4H	14.96	15.74	15.42	16.18	16.65	11.20	11.98	11.66	12.42	12.89
	6H	15.60	16.24	16.09	16.73	17.21	11.79	12.43	12.28	12.92	13.40
	8H	15.85	16.42	16.36	16.93	17.42	12.01	12.58	12.52	13.09	13.58
	12H	16.05	16.56	16.56	17.05	17.62	12.19	12.70	12.70	13.19	13.75
12H	4H	14.94	15.64	15.42	16.12	16.59	11.24	11.94	11.73	12.42	12.89
	6H	15.58	16.15	16.09	16.66	17.15	11.85	12.43	12.36	12.94	13.42
	8H	15.86	16.37	16.37	16.86	17.43	12.12	12.63	12.63	13.12	13.69