

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: P930468

Luminaire Tested: DFN2DS-PN2F0-040DS940-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930468
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-PN2F0-040DS940-RLL
Description: 2 foot, Pentagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

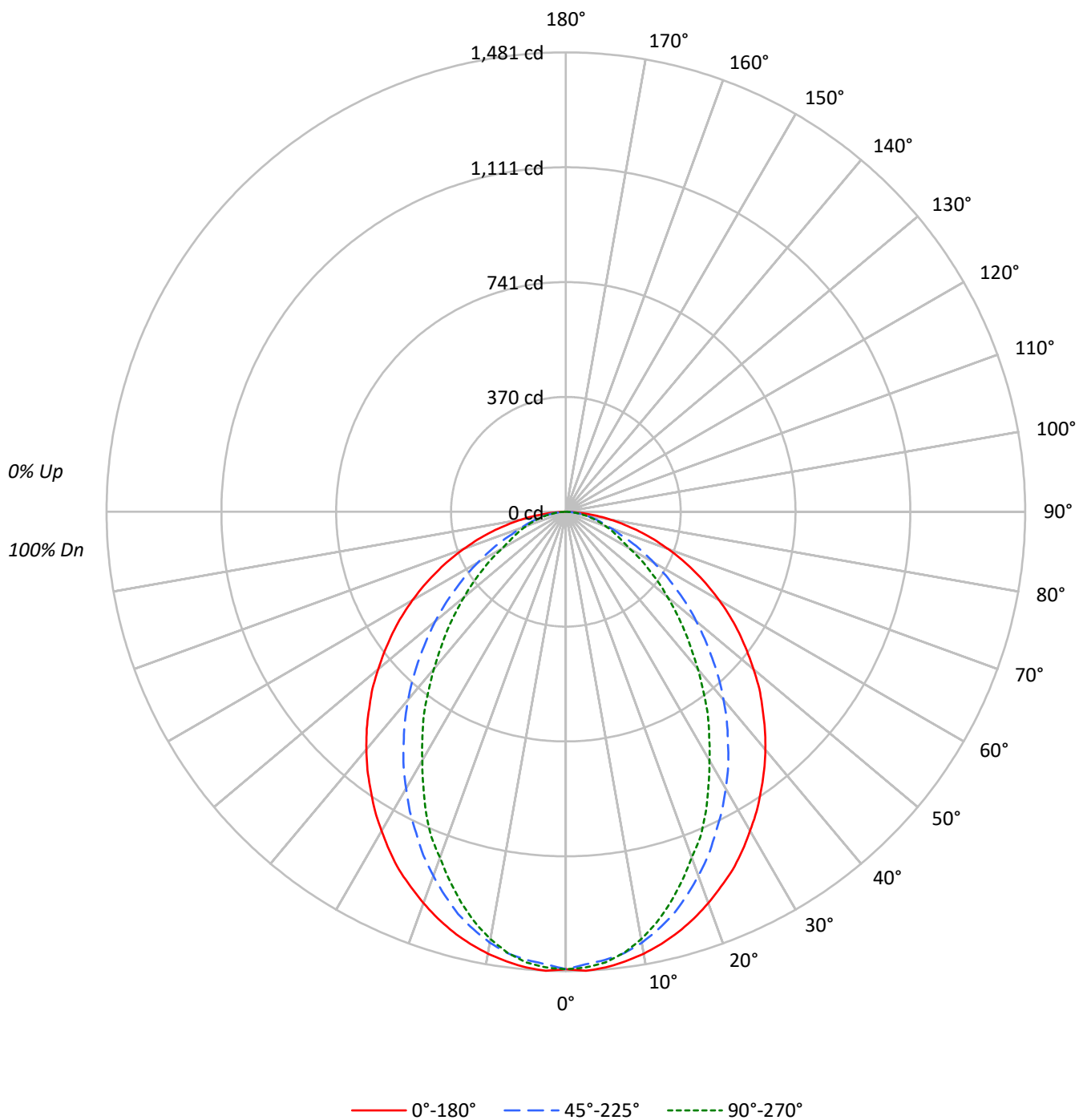
Lumens per Lamp: N/A
Luminaire Lumens: 3032.8 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 42.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9613
Total Harmonic Distortion (THDi): 0.083
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930468

CATALOG NUMBER: DFN2DS-PN2F0-040DS940-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930468

CATALOG NUMBER: DFN2DS-PN2F0-040DS940-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°	3194	3194	3194
5°	3206	3154	3171
10°	3181	3102	3076
15°	3145	3010	2924
20°	3094	2879	2735
25°	3043	2730	2551
30°	2971	2576	2316
35°	2901	2410	2110
40°	2830	2238	1872
45°	2747	2044	1656
50°	2662	1848	1443
55°	2575	1638	1240
60°	2474	1416	1029
65°	2360	1190	937
70°	2223	980	861
75°	2054	894	805
80°	1814	798	733
85°	1426	629	629

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 2747 cd/sqm

TEST NUMBER: P930468

CATALOG NUMBER: DFN2DS-PN2F0-040DS940-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.2	4.6
10°-20°	379.4	12.5
20°-30°	532.7	17.6
30°-40°	580.6	19.1
40°-50°	533.7	17.6
50°-60°	419.1	13.8
60°-70°	272.8	9.0
70°-80°	140.4	4.6
80°-90°	35.9	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°	1050.3	34.6
0°-40°	1630.9	53.8
0°-60°	2583.7	85.2
0°-90°	3032.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3032.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1475	1475	1475	1475	1475	
5°	1475	1468	1451	1463	1459	140
15°	1403	1388	1342	1317	1304	395
25°	1273	1230	1142	1088	1068	586
35°	1097	1029	912	827	798	687
45°	897	807	667	572	540	693
55°	682	578	434	354	328	609
65°	460	352	232	187	183	457
75°	246	152	107	97	96	260
85°	57	29	25	25	25	69
90°	0	0	0	0	0	

TEST NUMBER: P930468

CATALOG NUMBER: DFN2DS-PN2F0-040DS940-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1474.7	1474.7	1474.7	1474.7	1474.7
2.5°	1481.3	1474.7	1459.9	1473.4	1470.6
5°	1474.7	1468.0	1450.6	1462.6	1458.7
7.5°	1462.6	1454.7	1436.0	1441.2	1434.6
10°	1446.6	1437.3	1410.6	1406.5	1398.7
12.5°	1426.7	1414.6	1378.5	1370.6	1355.8
15°	1402.6	1387.9	1342.5	1317.2	1303.9
17.5°	1374.6	1353.2	1297.1	1267.8	1246.4
20°	1342.5	1315.8	1249.1	1215.8	1186.4
22.5°	1307.9	1277.2	1199.7	1154.3	1134.4
25°	1273.2	1230.4	1142.3	1087.7	1067.5
27.5°	1231.9	1186.4	1089.0	1026.2	995.5
30°	1187.8	1136.9	1030.2	962.2	926.2
32.5°	1145.1	1083.6	974.2	894.1	860.7
35°	1097.1	1028.9	911.5	827.4	798.0
37.5°	1050.3	976.8	852.8	760.6	727.3
40°	1000.9	920.9	791.4	696.7	662.0
42.5°	950.2	864.8	730.0	631.2	597.9
45°	896.8	807.3	667.3	572.5	540.5
47.5°	846.2	751.4	607.3	512.5	483.1
50°	790.0	695.3	548.5	456.3	428.4
52.5°	735.3	635.2	492.5	404.3	379.0
55°	681.9	577.8	433.7	353.7	328.3
57.5°	627.3	520.5	381.7	306.9	285.6
60°	571.1	464.4	326.9	258.9	237.6
62.5°	516.6	409.8	280.2	216.2	205.6
65°	460.5	352.3	232.2	186.9	182.8
67.5°	407.1	298.9	186.9	164.1	160.1
70°	351.0	246.9	154.8	141.5	136.0
72.5°	297.7	198.8	129.4	118.8	116.1
75°	245.5	152.1	106.8	97.4	96.2
77.5°	193.6	108.0	84.1	78.8	76.0
80°	145.4	77.4	64.0	58.8	58.8
82.5°	101.4	52.1	44.1	41.3	41.3
85°	57.4	29.3	25.3	25.3	25.3
87.5°	21.4	10.6	10.6	9.4	9.4
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930468

CATALOG NUMBER: DFN2DS-PN2F0-040DS940-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	15.27	16.79	15.63	17.10	17.42	11.23	12.75	11.59	13.06	13.38
	3H	17.03	18.40	17.41	18.73	19.09	12.49	13.86	12.87	14.19	14.55
	4H	17.70	18.98	18.10	19.33	19.71	13.00	14.28	13.40	14.63	15.00
	6H	18.19	19.37	18.60	19.74	20.13	13.38	14.56	13.79	14.93	15.32
	8H	18.36	19.48	18.78	19.87	20.27	13.50	14.63	13.93	15.02	15.42
	12H	18.46	19.54	18.89	19.92	20.35	13.58	14.66	14.01	15.04	15.47
4H	2H	15.37	16.65	15.77	17.00	17.38	11.92	13.21	12.32	13.55	13.93
	3H	17.31	18.37	17.72	18.77	19.17	13.37	14.43	13.78	14.83	15.23
	4H	18.06	19.01	18.49	19.43	19.87	13.97	14.92	14.40	15.34	15.78
	6H	18.65	19.48	19.11	19.92	20.38	14.46	15.29	14.91	15.73	16.19
	8H	18.86	19.64	19.33	20.08	20.55	14.62	15.40	15.08	15.84	16.31
	12H	19.02	19.71	19.50	20.19	20.66	14.73	15.43	15.22	15.91	16.38
8H	4H	18.08	18.86	18.54	19.30	19.77	14.32	15.10	14.78	15.54	16.01
	6H	18.72	19.36	19.21	19.85	20.33	14.91	15.55	15.41	16.04	16.52
	8H	18.97	19.54	19.48	20.05	20.54	15.13	15.71	15.64	16.22	16.70
	12H	19.17	19.68	19.68	20.17	20.74	15.31	15.82	15.82	16.31	16.87
12H	4H	18.06	18.76	18.55	19.24	19.71	14.36	15.06	14.85	15.54	16.01
	6H	18.70	19.28	19.21	19.79	20.27	14.97	15.55	15.49	16.06	16.55
	8H	18.98	19.49	19.49	19.99	20.55	15.25	15.75	15.75	16.25	16.81