

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: P931351

Luminaire Tested: DFN2DS-TR3F0-040DS950-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931351
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-TR3F0-040DS950-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

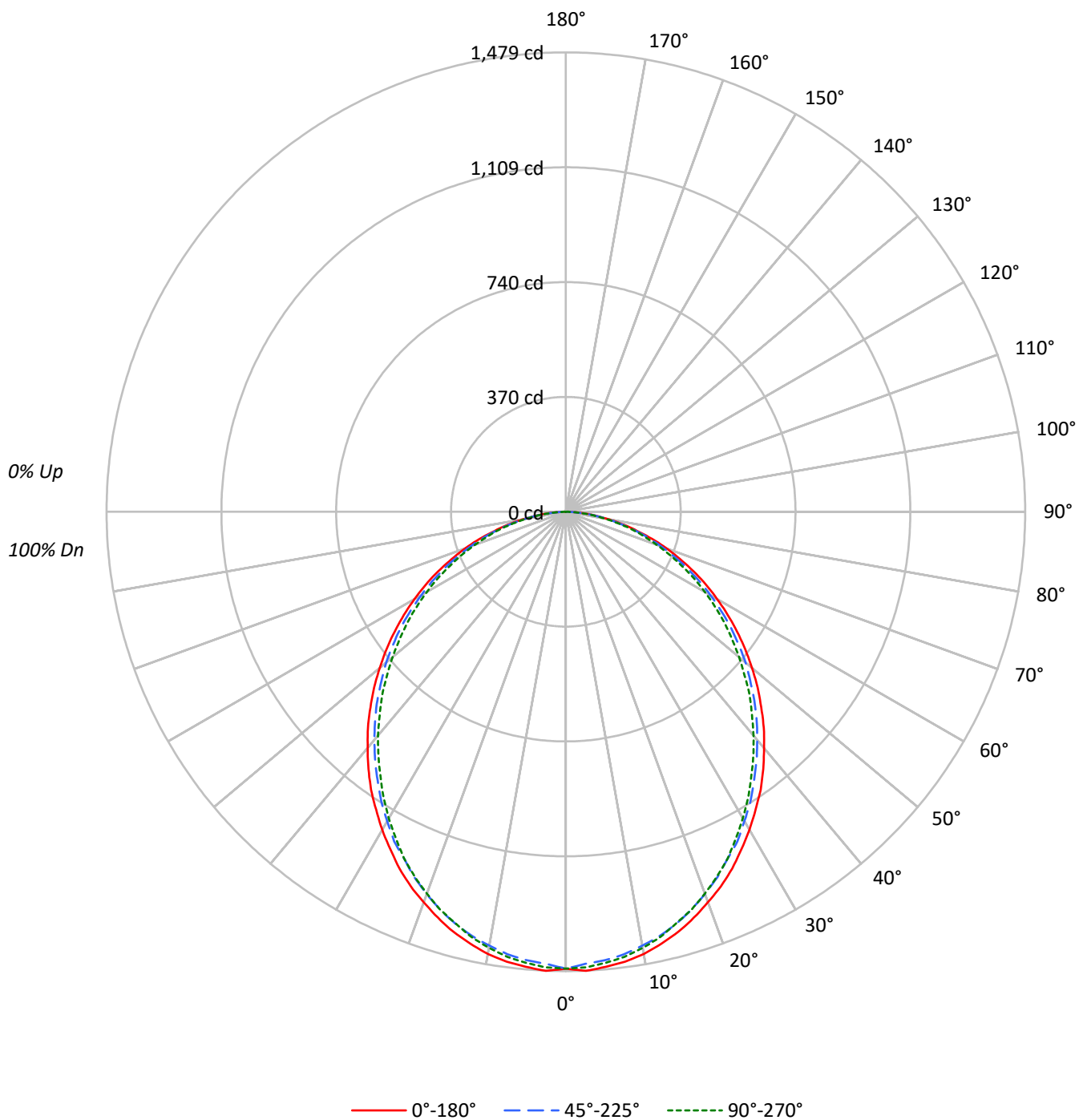
Lumens per Lamp: N/A
Luminaire Lumens: 3742.2 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 39.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9951
Total Harmonic Distortion (THDi): 0.07
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931351

CATALOG NUMBER: DFN2DS-TR3F0-040DS950-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P931351

CATALOG NUMBER: DFN2DS-TR3F0-040DS950-FLL

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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1833	1833	1833
5°	1840	1813	1824
10°	1829	1795	1804
15°	1806	1772	1770
20°	1774	1737	1735
25°	1742	1694	1694
30°	1701	1655	1640
35°	1663	1607	1583
40°	1615	1560	1530
45°	1568	1513	1476
50°	1516	1464	1412
55°	1463	1407	1355
60°	1403	1340	1290
65°	1339	1272	1214
70°	1257	1190	1134
75°	1144	1096	1069
80°	1015	984	934
85°	828	789	708

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1568 cd/sqm

TEST NUMBER: P931351

CATALOG NUMBER: DFN2DS-TR3F0-040DS950-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.4	3.7
10°-20°	389.5	10.4
20°-30°	572.4	15.3
30°-40°	664.8	17.8
40°-50°	664.0	17.7
50°-60°	579.0	15.5
60°-70°	428.0	11.4
70°-80°	242.2	6.5
80°-90°	63.9	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°	1100.3	29.4
0°-40°	1765.2	47.2
0°-60°	3008.1	80.4
0°-90°	3742.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3742.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1471	1471	1471	1471	1471	
5°	1471	1465	1450	1461	1458	140
15°	1400	1392	1373	1379	1372	394
25°	1267	1256	1232	1235	1232	583
35°	1093	1079	1056	1048	1041	683
45°	890	880	858	843	837	687
55°	673	665	648	631	624	602
65°	454	446	431	419	412	449
75°	238	235	228	219	222	254
85°	58	57	55	51	50	68
90°	0	0	0	0	0	

TEST NUMBER: P931351

CATALOG NUMBER: DFN2DS-TR3F0-040DS950-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1470.8	1470.8	1470.8	1470.8	1470.8
2.5°	1479.4	1472.3	1456.7	1470.8	1468.2
5°	1470.8	1465.2	1449.6	1460.9	1458.2
7.5°	1460.9	1452.5	1436.9	1448.3	1445.5
10°	1445.5	1435.5	1418.6	1429.9	1425.6
12.5°	1424.1	1415.7	1398.8	1405.9	1402.9
15°	1400.1	1391.7	1373.3	1378.9	1372.0
17.5°	1370.4	1362.0	1343.6	1350.6	1343.6
20°	1337.8	1329.4	1309.7	1313.8	1308.4
22.5°	1305.4	1292.7	1274.2	1274.2	1271.4
25°	1267.2	1255.9	1231.9	1234.6	1231.9
27.5°	1224.7	1214.8	1196.6	1192.3	1185.3
30°	1182.4	1171.0	1149.9	1145.6	1140.0
32.5°	1137.1	1128.7	1106.0	1097.5	1091.8
35°	1093.3	1079.2	1056.5	1048.0	1040.9
37.5°	1043.8	1031.0	1008.3	998.5	991.4
40°	992.9	981.5	958.8	946.2	940.6
42.5°	943.4	932.0	909.5	895.2	886.8
45°	889.6	879.8	858.4	843.0	837.3
47.5°	837.3	827.3	804.8	789.2	780.8
50°	782.1	775.0	755.2	735.4	728.3
52.5°	728.3	718.5	700.2	684.6	674.6
55°	673.3	664.7	647.8	630.8	623.8
57.5°	618.0	611.0	592.5	575.6	569.9
60°	562.8	557.3	537.5	521.9	517.7
62.5°	509.2	499.2	485.2	471.0	465.3
65°	454.1	445.5	431.4	418.6	411.6
67.5°	397.5	390.3	377.7	367.8	362.1
70°	345.1	339.4	326.7	316.8	311.2
72.5°	291.4	285.7	278.7	268.8	264.5
75°	237.6	234.8	227.7	219.2	222.1
77.5°	189.5	183.8	181.0	176.7	172.6
80°	141.5	140.0	137.1	133.0	130.1
82.5°	96.2	96.2	94.9	89.1	89.1
85°	57.9	56.6	55.2	50.8	49.5
87.5°	25.5	22.7	19.8	15.6	14.1
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931351

CATALOG NUMBER: DFN2DS-TR3F0-040DS950-FLL

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	13.39	15.00	13.75	15.31	15.63	12.94	14.55	13.31	14.87	15.18
	3H	15.14	16.59	15.51	16.92	17.28	14.65	16.10	15.02	16.43	16.79
	4H	15.78	17.15	16.18	17.50	17.88	15.29	16.66	15.69	17.01	17.38
	6H	16.25	17.52	16.66	17.89	18.28	15.75	17.02	16.16	17.38	17.78
	8H	16.40	17.61	16.82	18.00	18.39	15.89	17.10	16.32	17.49	17.89
	12H	16.49	17.65	16.92	18.03	18.46	15.97	17.13	16.40	17.52	17.94
4H	2H	13.95	15.32	14.35	15.66	16.04	13.60	14.96	13.99	15.31	15.69
	3H	15.92	17.07	16.33	17.47	17.87	15.52	16.66	15.93	17.06	17.46
	4H	16.70	17.74	17.13	18.15	18.59	16.28	17.31	16.71	17.73	18.16
	6H	17.30	18.20	17.75	18.64	19.10	16.86	17.77	17.32	18.21	18.67
	8H	17.49	18.33	17.95	18.77	19.24	17.05	17.89	17.51	18.34	18.80
	12H	17.62	18.38	18.10	18.85	19.32	17.17	17.93	17.65	18.40	18.87
8H	4H	16.97	17.82	17.43	18.26	18.73	16.60	17.45	17.06	17.89	18.35
	6H	17.69	18.39	18.18	18.88	19.35	17.31	18.01	17.80	18.50	18.97
	8H	17.95	18.58	18.46	19.08	19.57	17.55	18.19	18.06	18.69	19.18
	12H	18.15	18.70	18.65	19.19	19.76	17.73	18.29	18.24	18.78	19.34
12H	4H	17.00	17.76	17.48	18.23	18.70	16.63	17.39	17.11	17.87	18.34
	6H	17.73	18.36	18.24	18.87	19.36	17.36	18.00	17.87	18.50	18.99
	8H	18.05	18.60	18.55	19.09	19.66	17.67	18.23	18.18	18.72	19.28