

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: P931333

Luminaire Tested: DFN2DS-TR3F0-030DS950-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931333
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-TR3F0-030DS950-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

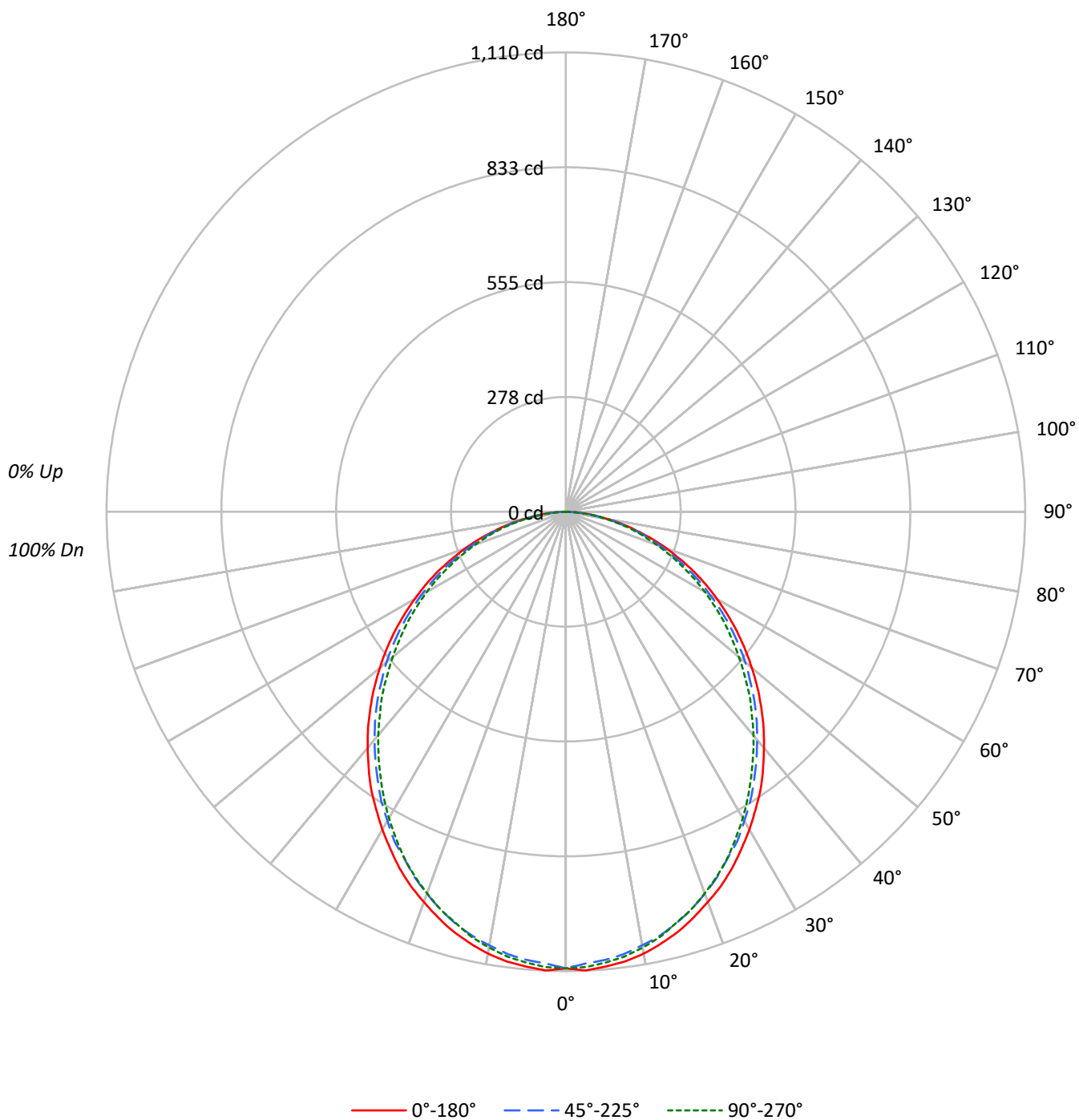
Lumens per Lamp: N/A
Luminaire Lumens: 2806.7 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9968
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: P931333

CATALOG NUMBER: DFN2DS-TR3F0-030DS950-FLL

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
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°	1375	1375	1375
5°	1380	1360	1368
10°	1372	1346	1353
15°	1355	1329	1327
20°	1331	1302	1301
25°	1307	1270	1270
30°	1276	1241	1230
35°	1247	1205	1188
40°	1211	1170	1147
45°	1176	1135	1107
50°	1137	1098	1059
55°	1097	1055	1017
60°	1052	1005	968
65°	1004	954	910
70°	943	893	850
75°	857	822	802
80°	761	738	700
85°	622	592	530

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 1176 cd/sqm

TEST NUMBER: P931333

CATALOG NUMBER: DFN2DS-TR3F0-030DS950-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.8	3.7
10°-20°	292.1	10.4
20°-30°	429.3	15.3
30°-40°	498.6	17.8
40°-50°	498.0	17.7
50°-60°	434.2	15.5
60°-70°	321.0	11.4
70°-80°	181.6	6.5
80°-90°	47.9	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°	825.3	29.4
0°-40°	1323.9	47.2
0°-60°	2256.1	80.4
0°-90°	2806.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2806.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1103	1103	1103	1103	1103	
5°	1103	1099	1087	1096	1094	105
15°	1050	1044	1030	1034	1029	296
25°	950	942	924	926	924	437
35°	820	809	792	786	781	512
45°	667	660	644	632	628	515
55°	505	499	486	473	468	451
65°	341	334	324	314	309	337
75°	178	176	171	164	167	190
85°	44	42	41	38	37	51
90°	0	0	0	0	0	

TEST NUMBER: P931333

CATALOG NUMBER: DFN2DS-TR3F0-030DS950-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1103.1	1103.1	1103.1	1103.1	1103.1
2.5°	1109.5	1104.2	1092.5	1103.1	1101.1
5°	1103.1	1098.9	1087.2	1095.7	1093.6
7.5°	1095.7	1089.4	1077.7	1086.3	1084.1
10°	1084.1	1076.6	1064.0	1072.4	1069.3
12.5°	1068.1	1061.8	1049.1	1054.3	1052.3
15°	1050.1	1043.8	1030.0	1034.2	1028.9
17.5°	1027.8	1021.5	1007.7	1012.9	1007.7
20°	1003.4	997.1	982.2	985.4	981.2
22.5°	979.1	969.6	955.7	955.7	953.5
25°	950.4	942.0	923.9	926.0	923.9
27.5°	918.5	911.1	897.4	894.3	889.0
30°	886.8	878.3	862.4	859.2	854.9
32.5°	852.9	846.5	829.5	823.1	818.8
35°	820.0	809.4	792.4	786.0	780.7
37.5°	782.8	773.3	756.3	748.8	743.5
40°	744.7	736.2	719.1	709.7	705.4
42.5°	707.5	699.0	682.1	671.4	665.1
45°	667.3	659.8	643.8	632.2	628.0
47.5°	628.0	620.6	603.6	591.9	585.5
50°	586.6	581.3	566.4	551.6	546.3
52.5°	546.3	538.8	525.1	513.4	506.0
55°	505.0	498.6	485.8	473.2	467.9
57.5°	463.5	458.2	444.4	431.7	427.4
60°	422.1	418.0	403.1	391.4	388.3
62.5°	381.9	374.4	363.8	353.2	349.0
65°	340.6	334.2	323.6	314.0	308.7
67.5°	298.1	292.8	283.2	275.8	271.6
70°	258.8	254.6	245.0	237.6	233.4
72.5°	218.6	214.2	208.9	201.6	198.4
75°	178.1	176.1	170.8	164.4	166.6
77.5°	142.1	137.9	135.7	132.6	129.5
80°	106.1	105.0	102.8	99.7	97.6
82.5°	72.1	72.1	71.2	66.8	66.8
85°	43.5	42.4	41.4	38.2	37.1
87.5°	19.1	17.0	14.8	11.7	10.6
90°	0.0	0.0	0.0	0.0	0.0

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CATALOG NUMBER: DFN2DS-TR3F0-030DS950-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	12.39	14.00	12.75	14.31	14.63	11.94	13.55	12.31	13.87	14.18
	3H	14.14	15.59	14.51	15.92	16.28	13.65	15.10	14.02	15.43	15.79
	4H	14.78	16.15	15.18	16.50	16.88	14.29	15.66	14.69	16.01	16.38
	6H	15.25	16.52	15.66	16.89	17.28	14.75	16.02	15.16	16.39	16.78
	8H	15.40	16.61	15.82	17.00	17.39	14.89	16.10	15.32	16.49	16.89
	12H	15.49	16.65	15.92	17.03	17.46	14.97	16.13	15.40	16.52	16.95
4H	2H	12.95	14.32	13.35	14.66	15.04	12.60	13.96	12.99	14.31	14.69
	3H	14.92	16.07	15.33	16.47	16.87	14.52	15.66	14.93	16.06	16.46
	4H	15.70	16.74	16.13	17.15	17.59	15.28	16.31	15.71	16.73	17.16
	6H	16.30	17.20	16.75	17.64	18.10	15.86	16.77	16.32	17.21	17.67
	8H	16.49	17.33	16.95	17.77	18.24	16.05	16.89	16.51	17.34	17.80
	12H	16.62	17.38	17.10	17.85	18.32	16.17	16.93	16.65	17.40	17.87
8H	4H	15.97	16.82	16.43	17.26	17.73	15.60	16.45	16.06	16.89	17.35
	6H	16.69	17.39	17.18	17.88	18.35	16.31	17.01	16.80	17.50	17.97
	8H	16.95	17.58	17.46	18.08	18.57	16.56	17.19	17.07	17.69	18.18
	12H	17.15	17.70	17.65	18.19	18.76	16.73	17.29	17.24	17.78	18.34
12H	4H	16.00	16.76	16.48	17.23	17.70	15.63	16.39	16.12	16.87	17.34
	6H	16.73	17.36	17.24	17.87	18.36	16.36	17.00	16.87	17.50	17.99
	8H	17.05	17.60	17.55	18.09	18.66	16.67	17.23	17.18	17.72	18.28