

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: P931261

Luminaire Tested: DFN2DS-TR2F0-030DS950-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931261
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-TR2F0-030DS950-FLL
Description: 2 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

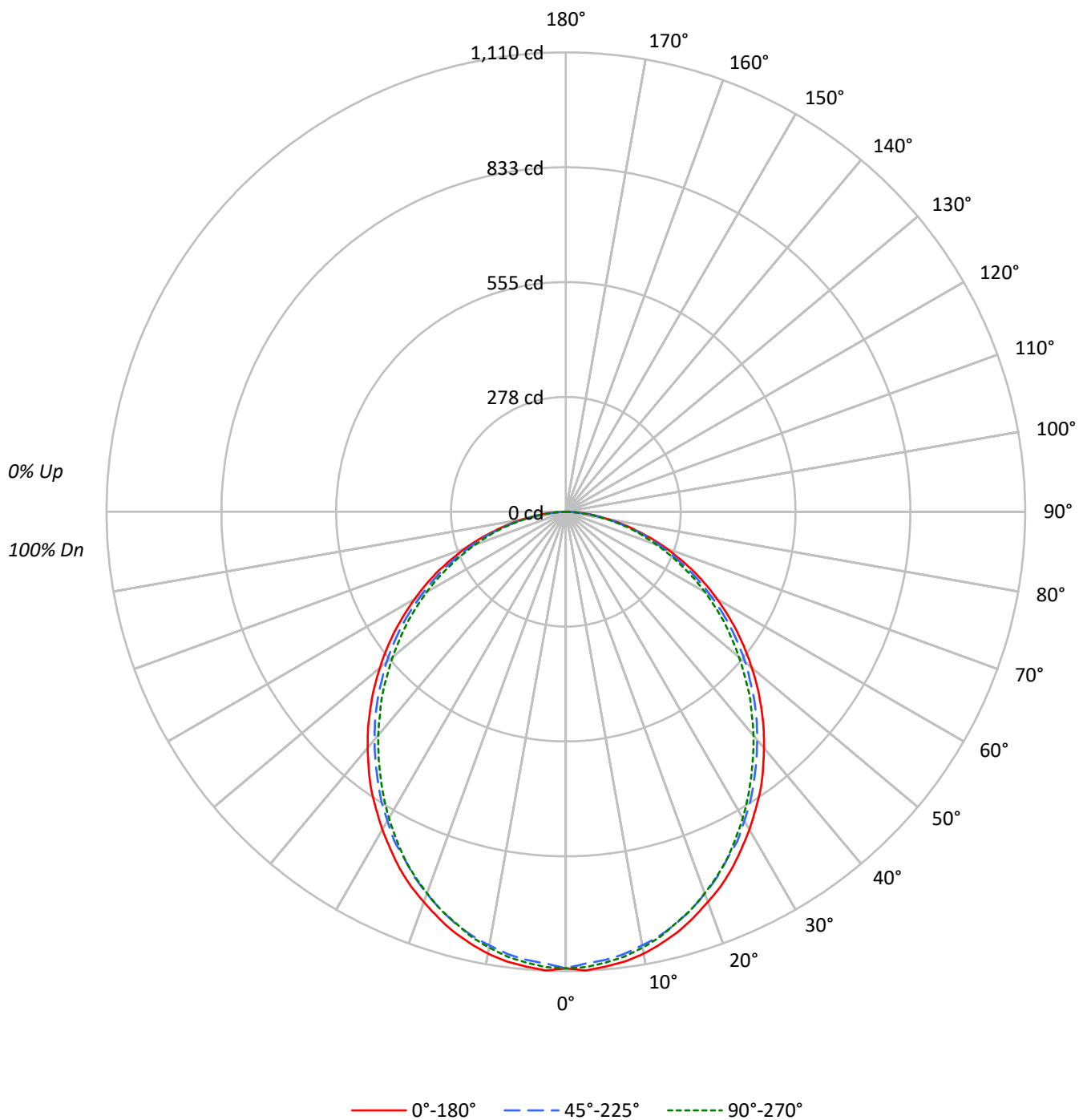
Lumens per Lamp: N/A
Luminaire Lumens: 2806.7 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
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

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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
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°	2460	2460	2460
5°	2470	2434	2449
10°	2455	2410	2422
15°	2425	2378	2376
20°	2382	2331	2329
25°	2339	2274	2274
30°	2284	2221	2202
35°	2233	2158	2126
40°	2168	2094	2054
45°	2105	2031	1981
50°	2035	1965	1896
55°	1964	1889	1819
60°	1883	1798	1732
65°	1798	1708	1629
70°	1688	1598	1522
75°	1535	1472	1436
80°	1363	1320	1254
85°	1113	1059	949

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2105 cd/sqm

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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	

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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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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	14.41	16.02	14.77	16.33	16.65	13.97	15.58	14.33	15.89	16.21
	3H	16.16	17.61	16.54	17.94	18.30	15.67	17.12	16.05	17.45	17.81
	4H	16.81	18.18	17.20	18.52	18.90	16.31	17.68	16.71	18.03	18.41
	6H	17.28	18.54	17.69	18.91	19.30	16.78	18.04	17.19	18.41	18.80
	8H	17.42	18.63	17.84	19.02	19.42	16.92	18.13	17.34	18.52	18.92
	12H	17.51	18.67	17.94	19.05	19.48	17.00	18.16	17.43	18.54	18.97
4H	2H	14.97	16.34	15.37	16.69	17.06	14.62	15.99	15.02	16.34	16.71
	3H	16.95	18.09	17.36	18.49	18.89	16.54	17.69	16.95	18.08	18.48
	4H	17.72	18.76	18.15	19.17	19.61	17.30	18.33	17.73	18.75	19.18
	6H	18.32	19.22	18.77	19.66	20.12	17.89	18.79	18.34	19.23	19.69
	8H	18.51	19.35	18.97	19.80	20.26	18.07	18.92	18.53	19.36	19.83
	12H	18.64	19.40	19.12	19.88	20.35	18.19	18.95	18.67	19.42	19.89
8H	4H	18.00	18.84	18.46	19.28	19.75	17.62	18.47	18.08	18.91	19.38
	6H	18.71	19.41	19.20	19.90	20.38	18.33	19.03	18.82	19.52	20.00
	8H	18.97	19.60	19.48	20.11	20.59	18.58	19.21	19.09	19.72	20.20
	12H	19.17	19.73	19.68	20.22	20.78	18.76	19.31	19.26	19.80	20.37
12H	4H	18.02	18.78	18.50	19.26	19.73	17.66	18.42	18.14	18.89	19.36
	6H	18.76	19.39	19.26	19.89	20.38	18.39	19.02	18.90	19.53	20.01
	8H	19.07	19.63	19.58	20.12	20.68	18.69	19.25	19.20	19.74	20.30