

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: P931327

Luminaire Tested: DFN2DS-TR3F0-030DS930-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931327
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-TR3F0-030DS930-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

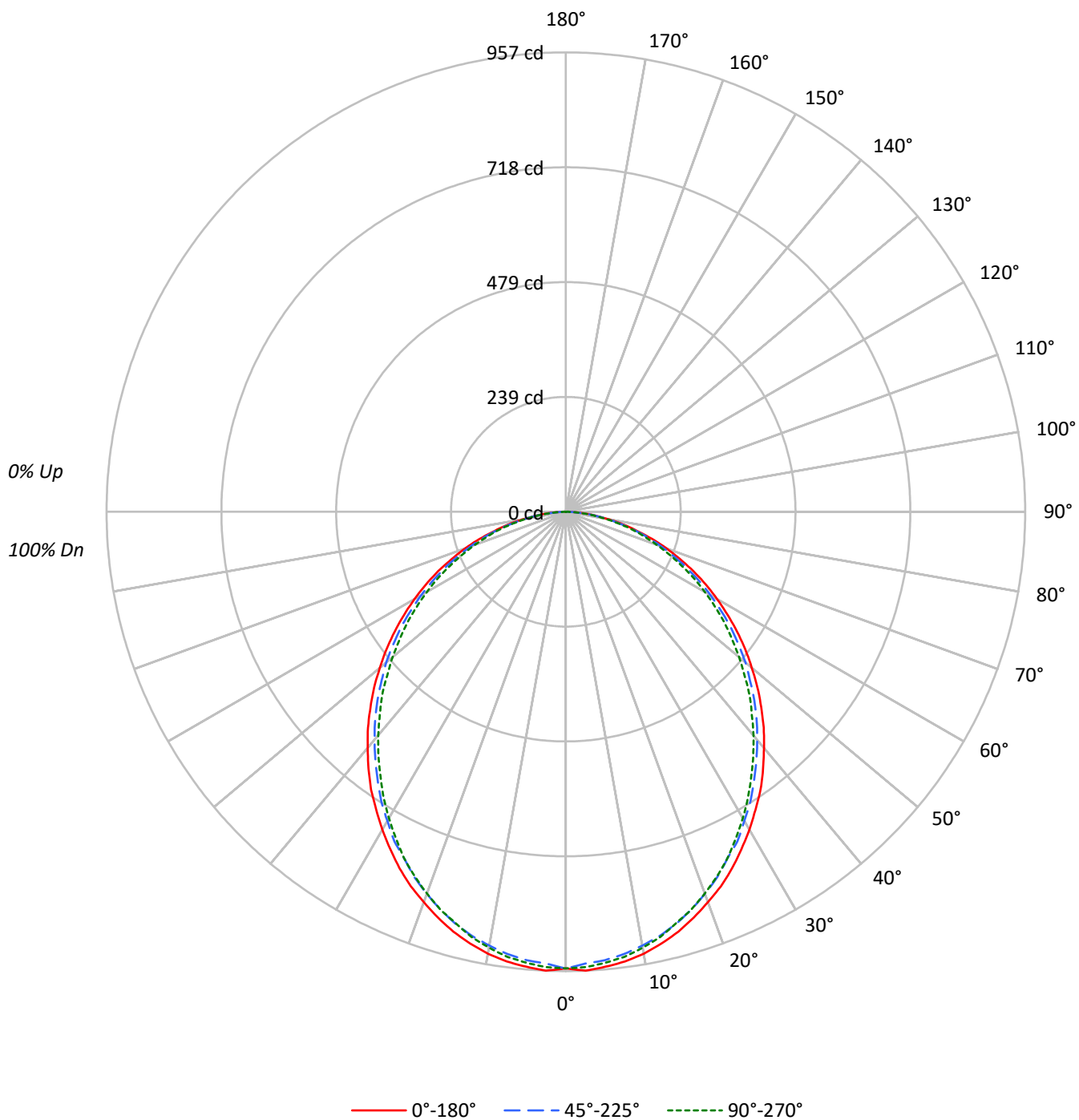
Lumens per Lamp: N/A
Luminaire Lumens: 2420.6 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

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: P931327

CATALOG NUMBER: DFN2DS-TR3F0-030DS930-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°	1185	1185	1185
5°	1190	1173	1180
10°	1183	1161	1167
15°	1168	1146	1145
20°	1148	1123	1122
25°	1127	1096	1096
30°	1100	1070	1061
35°	1076	1040	1024
40°	1045	1009	990
45°	1014	979	954
50°	981	947	913
55°	946	910	877
60°	907	867	835
65°	866	823	785
70°	813	770	733
75°	740	709	692
80°	657	637	604
85°	536	510	458

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1014 cd/sqm

TEST NUMBER: P931327

CATALOG NUMBER: DFN2DS-TR3F0-030DS930-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	3.7
10°-20°	251.9	10.4
20°-30°	370.2	15.3
30°-40°	430.0	17.8
40°-50°	429.5	17.7
50°-60°	374.5	15.5
60°-70°	276.9	11.4
70°-80°	156.6	6.5
80°-90°	41.3	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°	711.7	29.4
0°-40°	1141.7	47.2
0°-60°	1945.8	80.4
0°-90°	2420.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2420.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	951	951	951	951	951	
5°	951	948	938	945	943	90
15°	906	900	888	892	887	255
25°	820	812	797	799	797	377
35°	707	698	683	678	673	442
45°	576	569	555	545	542	444
55°	436	430	419	408	404	389
65°	294	288	279	271	266	290
75°	154	152	147	142	144	164
85°	38	37	36	33	32	44
90°	0	0	0	0	0	

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CATALOG NUMBER: DFN2DS-TR3F0-030DS930-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	951.3	951.3	951.3	951.3	951.3
2.5°	956.9	952.3	942.2	951.3	949.6
5°	951.3	947.8	937.7	945.0	943.2
7.5°	945.0	939.5	929.4	936.8	935.0
10°	935.0	928.5	917.6	924.9	922.2
12.5°	921.2	915.7	904.8	909.3	907.5
15°	905.6	900.2	888.3	891.9	887.4
17.5°	886.4	881.0	869.0	873.6	869.0
20°	865.4	859.9	847.1	849.8	846.2
22.5°	844.4	836.2	824.2	824.2	822.3
25°	819.6	812.4	796.8	798.6	796.8
27.5°	792.2	785.7	773.9	771.2	766.7
30°	764.8	757.5	743.8	741.0	737.3
32.5°	735.5	730.1	715.4	709.9	706.2
35°	707.2	698.0	683.4	677.8	673.3
37.5°	675.1	666.9	652.2	645.8	641.2
40°	642.2	634.9	620.2	612.1	608.4
42.5°	610.2	602.9	588.3	579.1	573.6
45°	575.5	569.0	555.3	545.2	541.6
47.5°	541.6	535.2	520.5	510.4	505.0
50°	505.9	501.3	488.5	475.7	471.2
52.5°	471.2	464.7	452.9	442.8	436.4
55°	435.5	430.0	419.0	408.1	403.5
57.5°	399.8	395.2	383.3	372.3	368.6
60°	364.1	360.5	347.7	337.6	334.9
62.5°	329.3	322.9	313.8	304.6	301.0
65°	293.7	288.2	279.1	270.8	266.3
67.5°	257.1	252.5	244.3	237.9	234.2
70°	223.2	219.6	211.3	204.9	201.3
72.5°	188.5	184.8	180.2	173.8	171.1
75°	153.6	151.9	147.3	141.8	143.7
77.5°	122.6	118.9	117.0	114.3	111.7
80°	91.5	90.5	88.7	86.0	84.2
82.5°	62.2	62.2	61.4	57.6	57.6
85°	37.5	36.6	35.7	32.9	32.0
87.5°	16.5	14.7	12.8	10.1	9.1
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	11.87	13.48	12.24	13.80	14.11	11.43	13.04	11.79	13.35	13.67
	3H	13.62	15.08	14.00	15.41	15.77	13.13	14.59	13.51	14.91	15.27
	4H	14.27	15.64	14.67	15.99	16.36	13.78	15.14	14.17	15.49	15.87
	6H	14.74	16.01	15.15	16.37	16.76	14.24	15.51	14.65	15.87	16.26
	8H	14.88	16.09	15.31	16.48	16.88	14.38	15.59	14.80	15.98	16.38
	12H	14.97	16.13	15.40	16.51	16.94	14.46	15.62	14.89	16.00	16.43
4H	2H	12.43	13.80	12.83	14.15	14.53	12.08	13.45	12.48	13.80	14.17
	3H	14.41	15.56	14.82	15.95	16.35	14.00	15.15	14.41	15.55	15.95
	4H	15.19	16.22	15.62	16.64	17.07	14.76	15.80	15.19	16.21	16.65
	6H	15.78	16.69	16.24	17.13	17.58	15.35	16.26	15.80	16.70	17.15
	8H	15.97	16.82	16.43	17.26	17.73	15.53	16.38	15.99	16.82	17.29
	12H	16.10	16.86	16.58	17.34	17.81	15.65	16.41	16.13	16.89	17.36
8H	4H	15.46	16.31	15.92	16.75	17.21	15.09	15.93	15.55	16.37	16.84
	6H	16.17	16.88	16.67	17.36	17.84	15.79	16.50	16.29	16.98	17.46
	8H	16.43	17.06	16.94	17.57	18.06	16.04	16.67	16.55	17.18	17.66
	12H	16.63	17.19	17.14	17.68	18.24	16.22	16.78	16.73	17.27	17.83
12H	4H	15.49	16.25	15.97	16.72	17.19	15.12	15.88	15.60	16.36	16.83
	6H	16.22	16.85	16.73	17.36	17.84	15.85	16.48	16.36	16.99	17.48
	8H	16.53	17.09	17.04	17.58	18.14	16.15	16.71	16.66	17.20	17.76