

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P242379

Luminaire Tested: S122RDRP-S675D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242379
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S675D935-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

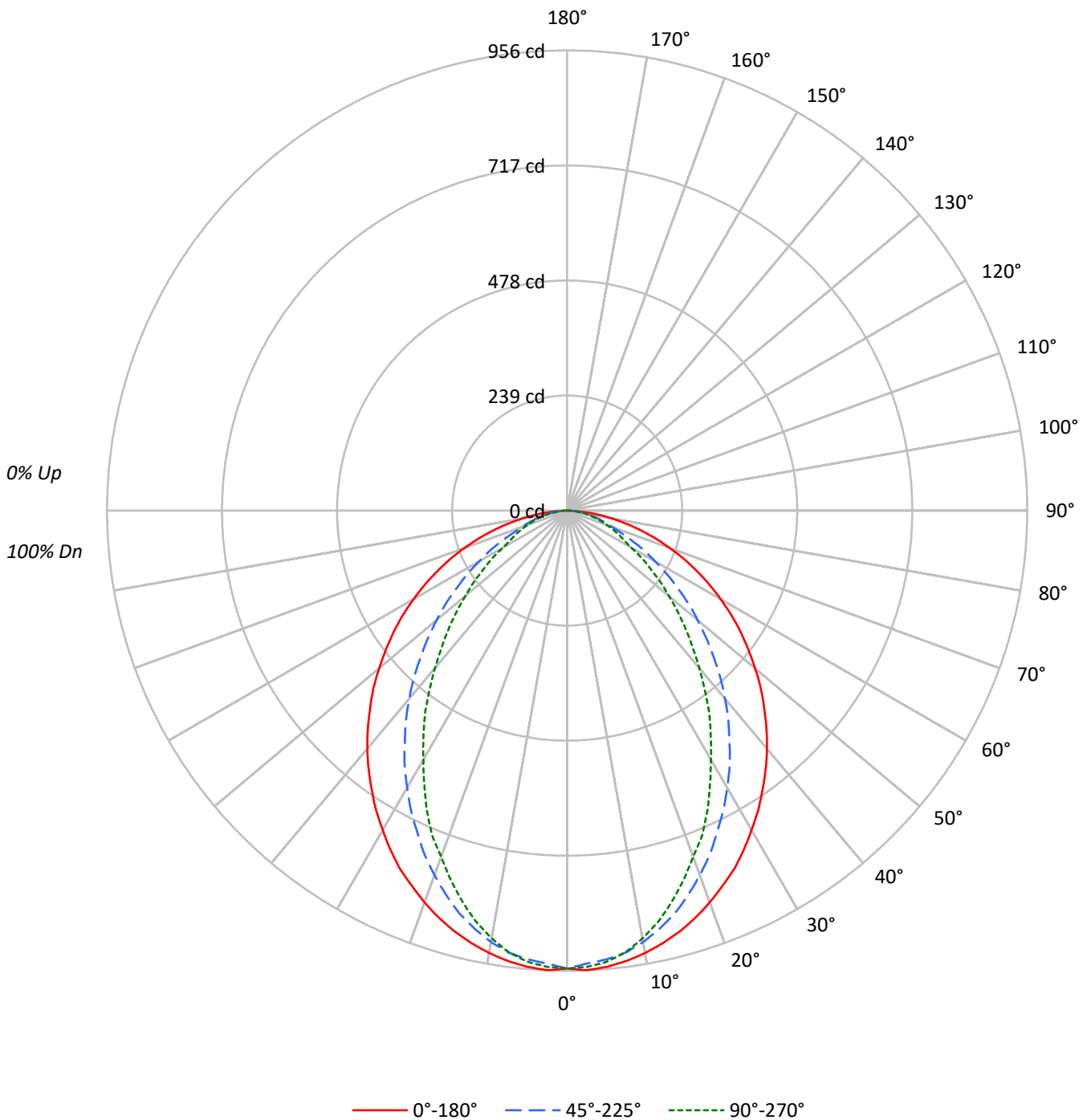
Lumens per Lamp: N/A
Luminaire Lumens: 1956.7 lumens
Efficiency: N/A
Efficacy: 74.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18122	18122	18122
5°	18191	17895	17994
10°	18051	17603	17452
15°	17844	17081	16588
20°	17558	16336	15515
25°	17263	15489	14476
30°	16854	14620	13142
35°	16456	13675	11973
40°	16055	12696	10620
45°	15586	11597	9393
50°	15104	10487	8191
55°	14612	9292	7034
60°	14038	8034	5840
65°	13386	6752	5318
70°	12609	5564	4890
75°	11657	5071	4563
80°	10289	4530	4157
85°	8086	3584	3584

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15586 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	4.6
10°-20°	244.8	12.5
20°-30°	343.7	17.6
30°-40°	374.6	19.1
40°-50°	344.3	17.6
50°-60°	270.4	13.8
60°-70°	176.0	9.0
70°-80°	90.6	4.6
80°-90°	23.1	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°	677.6	34.6
0°-40°	1052.2	53.8
0°-60°	1666.9	85.2
0°-90°	1956.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1956.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	951	951	951	951	951	
5°	951	947	936	944	941	90
15°	905	895	866	850	841	255
25°	821	794	737	702	689	378
35°	708	664	588	534	515	443
45°	579	521	430	369	349	447
55°	440	373	280	228	212	393
65°	297	227	150	120	118	294
75°	158	98	69	63	62	168
85°	37	19	16	16	16	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	951.4	951.4	951.4	951.4	951.4
2.5°	955.7	951.4	941.9	950.5	948.8
5°	951.4	947.1	935.9	943.7	941.1
7.5°	943.7	938.5	926.4	929.9	925.6
10°	933.3	927.3	910.1	907.5	902.3
12.5°	920.4	912.7	889.4	884.2	874.8
15°	904.9	895.4	866.2	849.8	841.2
17.5°	886.8	873.1	836.9	817.9	804.2
20°	866.2	848.9	805.9	784.4	765.4
22.5°	843.8	824.0	774.0	744.8	731.8
25°	821.4	793.8	737.0	701.7	688.8
27.5°	794.7	765.4	702.6	662.1	642.3
30°	766.3	733.6	664.7	620.8	597.5
32.5°	738.7	699.1	628.5	576.9	555.3
35°	707.7	663.8	588.1	533.8	514.9
37.5°	677.6	630.3	550.2	490.8	469.2
40°	645.7	594.1	510.6	449.4	427.1
42.5°	613.0	557.9	471.0	407.3	385.7
45°	578.6	520.9	430.5	369.4	348.7
47.5°	545.9	484.7	391.8	330.6	311.7
50°	509.7	448.6	353.9	294.5	276.4
52.5°	474.4	409.8	317.7	260.9	244.5
55°	440.0	372.8	279.8	228.2	211.8
57.5°	404.7	335.8	246.2	198.0	184.3
60°	368.5	299.6	210.9	167.0	153.3
62.5°	333.2	264.3	180.8	139.5	132.6
65°	297.0	227.3	149.8	120.5	118.0
67.5°	262.6	192.9	120.5	105.9	103.3
70°	226.4	159.3	99.9	91.3	87.8
72.5°	192.0	128.3	83.5	76.6	74.9
75°	158.4	98.2	68.9	62.9	62.0
77.5°	124.8	69.7	54.2	50.8	49.1
80°	93.8	49.9	41.3	37.9	37.9
82.5°	65.4	33.6	28.4	26.7	26.7
85°	37.0	18.9	16.4	16.4	16.4
87.5°	13.8	6.9	6.9	6.0	6.0
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	21.30	22.82	21.67	23.14	23.45	17.26	18.78	17.62	19.10	19.41
	3H	23.07	24.43	23.44	24.76	25.12	18.53	19.89	18.90	20.22	20.58
	4H	23.73	25.01	24.13	25.36	25.74	19.03	20.31	19.43	20.66	21.04
	6H	24.22	25.40	24.63	25.77	26.16	19.41	20.59	19.82	20.96	21.35
	8H	24.39	25.51	24.81	25.90	26.30	19.53	20.66	19.96	21.05	21.45
	12H	24.49	25.57	24.92	25.95	26.38	19.62	20.69	20.05	21.08	21.50
4H	2H	21.40	22.68	21.80	23.03	23.41	17.96	19.24	18.36	19.58	19.96
	3H	23.34	24.40	23.75	24.80	25.20	19.40	20.46	19.81	20.86	21.26
	4H	24.09	25.04	24.52	25.46	25.90	20.00	20.96	20.43	21.37	21.81
	6H	24.68	25.51	25.14	25.95	26.41	20.49	21.32	20.94	21.76	22.22
	8H	24.89	25.67	25.36	26.11	26.58	20.65	21.43	21.11	21.87	22.34
	12H	25.05	25.74	25.53	26.22	26.69	20.77	21.46	21.25	21.94	22.41
8H	4H	24.11	24.89	24.58	25.33	25.80	20.35	21.13	20.82	21.57	22.04
	6H	24.75	25.39	25.25	25.88	26.36	20.94	21.58	21.44	22.07	22.55
	8H	25.00	25.58	25.51	26.08	26.57	21.16	21.74	21.67	22.25	22.74
	12H	25.20	25.71	25.71	26.20	26.77	21.34	21.85	21.85	22.34	22.91
12H	4H	24.10	24.79	24.58	25.27	25.74	20.40	21.09	20.88	21.57	22.04
	6H	24.73	25.31	25.24	25.82	26.30	21.00	21.58	21.52	22.09	22.58
	8H	25.01	25.52	25.52	26.02	26.58	21.28	21.79	21.79	22.28	22.84