

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: P243226

Luminaire Tested: S122RDRP-H1005D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243226
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-63)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H1005D835-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

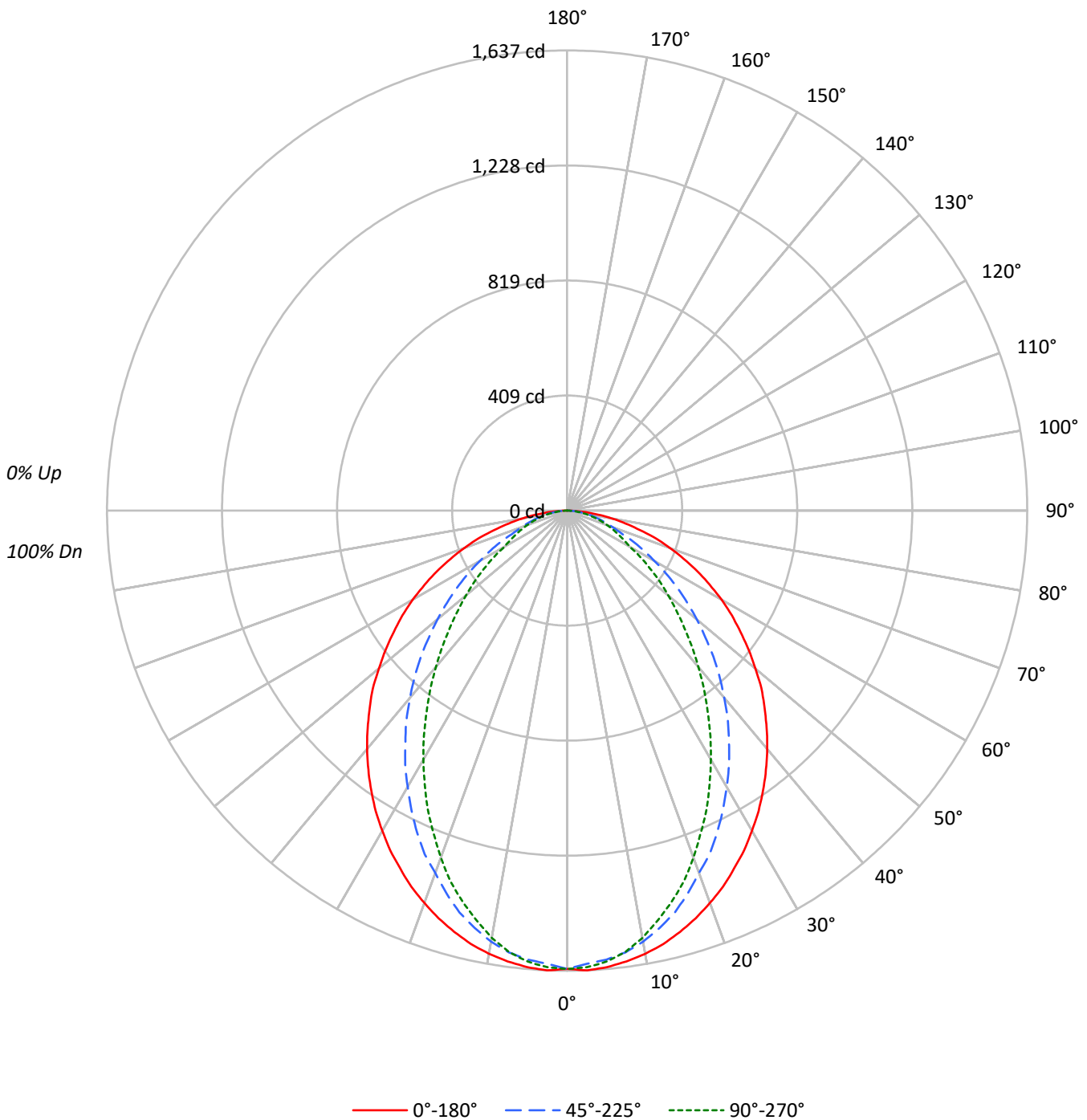
Lumens per Lamp: N/A
Luminaire Lumens: 3343.4 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): 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

TEST NUMBER: P243226

CATALOG NUMBER: S122RDRP-H1005D835-X4F0-XX-UDD-F-W

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	77	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°	31053	31053	31053
5°	31172	30660	30795
10°	30960	30117	29846
15°	30595	29181	28377
20°	30109	27801	26631
25°	29533	26546	24655
30°	28927	24966	22491
35°	28259	23320	20246
40°	27526	21615	18047
45°	26752	19818	15877
50°	25884	17839	13922
55°	24990	15880	12005
60°	24168	13665	9806
65°	23076	11538	9064
70°	21698	9557	8460
75°	19775	8699	7764
80°	17748	7711	6943
85°	14752	6447	6141

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 26752 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.7	4.6
10°-20°	418.5	12.5
20°-30°	587.0	17.6
30°-40°	639.4	19.1
40°-50°	587.8	17.6
50°-60°	461.2	13.8
60°-70°	300.9	9.0
70°-80°	155.6	4.7
80°-90°	40.3	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°	1158.2	34.6
0°-40°	1797.7	53.8
0°-60°	2846.7	85.1
0°-90°	3343.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3343.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1630	1630	1630	1630	1630	
5°	1630	1622	1604	1615	1611	155
15°	1552	1533	1480	1450	1439	437
25°	1405	1356	1263	1201	1173	648
35°	1215	1135	1003	910	871	760
45°	993	892	736	629	589	767
55°	752	640	478	388	362	674
65°	512	388	256	208	201	506
75°	269	167	118	108	106	287
85°	68	32	30	28	28	78
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1630.3	1630.3	1630.3	1630.3	1630.3
2.5°	1637.3	1630.3	1613.4	1628.9	1626.0
5°	1630.3	1621.8	1603.5	1614.8	1610.6
7.5°	1617.6	1609.2	1585.3	1590.9	1583.9
10°	1600.7	1589.5	1557.1	1551.5	1543.1
12.5°	1579.6	1564.2	1520.6	1503.7	1492.4
15°	1551.5	1533.2	1479.8	1450.2	1439.0
17.5°	1520.6	1493.8	1427.7	1394.0	1382.7
20°	1485.4	1454.4	1371.5	1336.3	1313.8
22.5°	1448.8	1409.4	1323.6	1268.8	1242.0
25°	1405.2	1356.0	1263.1	1201.3	1173.1
27.5°	1363.0	1305.3	1199.8	1128.1	1097.2
30°	1315.2	1251.9	1135.1	1052.1	1022.6
32.5°	1267.4	1194.2	1071.8	981.8	948.1
35°	1215.3	1135.1	1002.9	910.1	870.7
37.5°	1161.9	1078.9	939.6	836.9	799.0
40°	1107.0	1014.2	869.3	762.4	725.8
42.5°	1050.7	956.5	803.2	693.5	658.3
45°	993.1	891.8	735.7	628.8	589.4
47.5°	938.2	828.5	666.7	565.5	527.5
50°	873.5	765.2	602.0	499.3	469.8
52.5°	814.4	701.9	538.7	440.3	415.0
55°	752.5	640.0	478.2	388.2	361.5
57.5°	694.9	575.3	417.8	336.2	310.9
60°	634.4	513.4	358.7	284.1	257.4
62.5°	571.1	450.1	306.6	236.3	227.9
65°	512.0	388.2	256.0	208.2	201.1
67.5°	448.7	330.6	204.0	182.9	175.8
70°	389.6	274.3	171.6	156.1	151.9
72.5°	332.0	220.8	144.9	132.2	128.0
75°	268.7	167.4	118.2	108.3	105.5
77.5°	213.8	118.2	94.2	87.2	84.4
80°	161.8	85.8	70.3	66.1	63.3
82.5°	111.1	57.7	49.2	46.4	45.0
85°	67.5	32.4	29.5	28.1	28.1
87.5°	26.7	12.7	12.7	11.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P243226

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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	23.18	24.71	23.55	25.02	25.33	19.07	20.59	19.43	20.91	21.22
	3H	24.95	26.32	25.33	26.64	27.01	20.36	21.73	20.74	22.06	22.42
	4H	25.61	26.89	26.01	27.24	27.62	20.87	22.15	21.27	22.50	22.88
	6H	26.10	27.28	26.51	27.65	28.04	21.25	22.44	21.67	22.80	23.19
	8H	26.27	27.39	26.69	27.78	28.18	21.38	22.50	21.80	22.89	23.29
	12H	26.38	27.45	26.81	27.84	28.27	21.46	22.54	21.89	22.92	23.35
4H	2H	23.28	24.57	23.68	24.91	25.29	19.78	21.06	20.18	21.41	21.78
	3H	25.22	26.29	25.63	26.69	27.09	21.25	22.31	21.66	22.71	23.11
	4H	25.97	26.92	26.40	27.34	27.78	21.85	22.81	22.29	23.23	23.67
	6H	26.56	27.39	27.02	27.83	28.29	22.35	23.18	22.80	23.62	24.08
	8H	26.77	27.55	27.24	27.99	28.46	22.51	23.28	22.97	23.73	24.20
	12H	26.93	27.63	27.42	28.11	28.58	22.62	23.32	23.11	23.80	24.27
8H	4H	25.99	26.77	26.46	27.21	27.68	22.21	22.99	22.68	23.44	23.90
	6H	26.63	27.27	27.13	27.76	28.24	22.81	23.45	23.30	23.94	24.42
	8H	26.88	27.46	27.39	27.97	28.45	23.03	23.61	23.54	24.12	24.60
	12H	27.09	27.60	27.60	28.10	28.66	23.21	23.72	23.72	24.21	24.78
12H	4H	25.98	26.67	26.46	27.15	27.62	22.26	22.95	22.74	23.43	23.90
	6H	26.61	27.19	27.12	27.70	28.19	22.87	23.45	23.39	23.96	24.45
	8H	26.89	27.40	27.40	27.90	28.46	23.15	23.66	23.66	24.15	24.71