

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: P242366

Luminaire Tested: S122RDRP-S1005D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242366
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-S1005D835-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

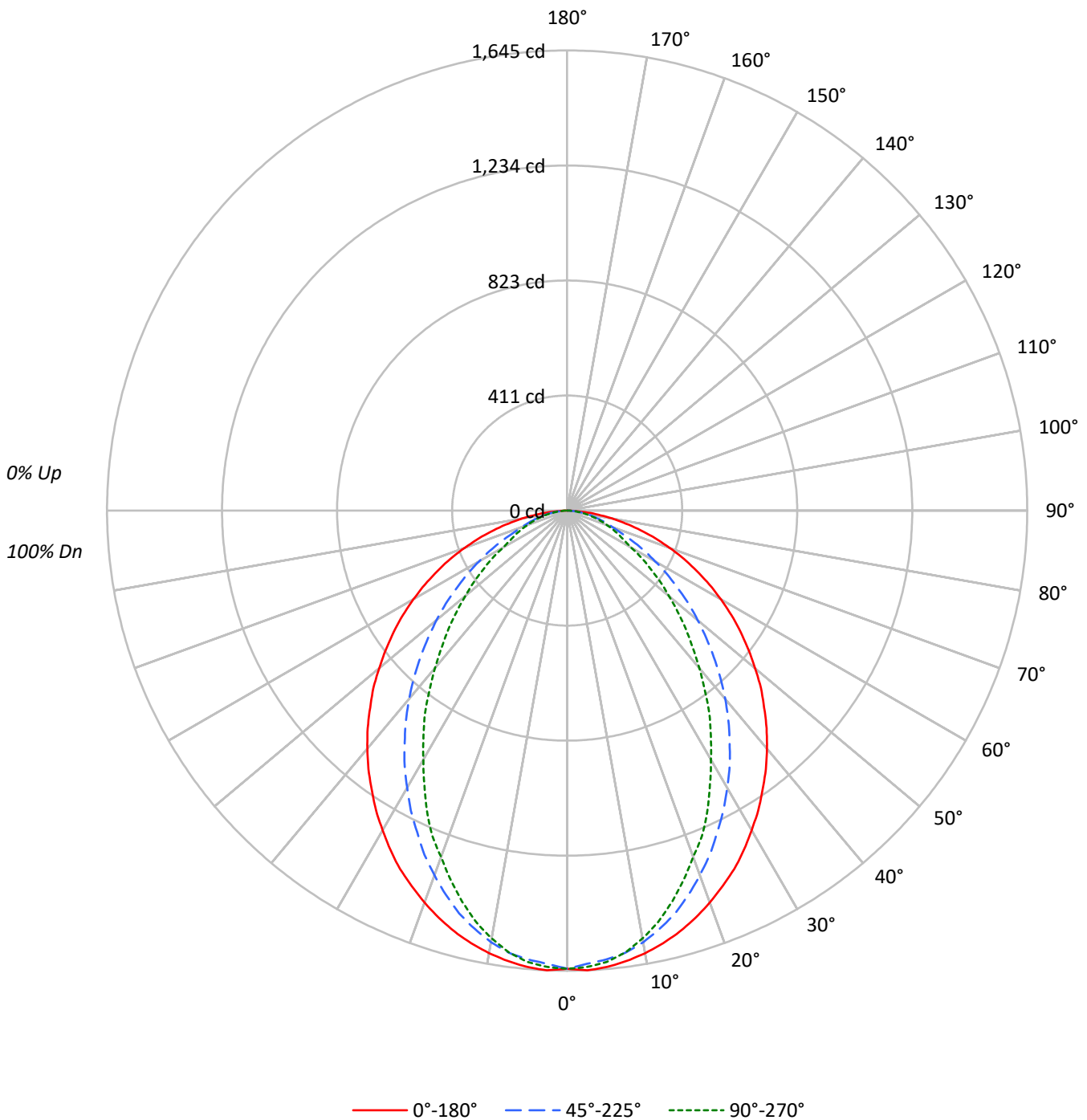
Lumens per Lamp: N/A
Luminaire Lumens: 3368.1 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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

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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°	31194	31194	31194
5°	31314	30803	30973
10°	31074	30300	30041
15°	30717	29402	28554
20°	30223	28119	26708
25°	29716	26664	24920
30°	29011	25166	22623
35°	28329	23539	20609
40°	27640	21854	18278
45°	26830	19961	16168
50°	26000	18049	14096
55°	25149	15997	12108
60°	24164	13832	10050
65°	23045	11624	9149
70°	21709	9573	8421
75°	20069	8728	7853
80°	17715	7799	7152
85°	13922	6163	6163

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 26830 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.5	4.6
10°-20°	421.4	12.5
20°-30°	591.6	17.6
30°-40°	644.8	19.1
40°-50°	592.7	17.6
50°-60°	465.5	13.8
60°-70°	303.0	9.0
70°-80°	156.0	4.6
80°-90°	39.8	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°	1166.4	34.6
0°-40°	1811.3	53.8
0°-60°	2869.4	85.2
0°-90°	3368.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3368.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1638	1638	1638	1638	1638	
5°	1638	1630	1611	1624	1620	155
15°	1558	1541	1491	1463	1448	439
25°	1414	1366	1269	1208	1186	650
35°	1218	1143	1012	919	886	763
45°	996	897	741	636	600	769
55°	757	642	482	393	365	677
65°	511	391	258	208	203	507
75°	273	169	119	108	107	288
85°	64	33	28	28	28	76
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1637.7	1637.7	1637.7	1637.7	1637.7
2.5°	1645.1	1637.7	1621.4	1636.2	1633.2
5°	1637.7	1630.3	1611.0	1624.4	1619.9
7.5°	1624.4	1615.5	1594.7	1600.6	1593.2
10°	1606.6	1596.2	1566.6	1562.1	1553.2
12.5°	1584.3	1571.0	1531.0	1522.1	1505.8
15°	1557.7	1541.4	1491.0	1462.8	1448.0
17.5°	1526.5	1502.8	1440.6	1408.0	1384.3
20°	1491.0	1461.3	1387.2	1350.2	1317.6
22.5°	1452.4	1418.3	1332.4	1282.0	1259.8
25°	1413.9	1366.5	1268.7	1207.9	1185.7
27.5°	1368.0	1317.6	1209.4	1139.7	1105.6
30°	1319.0	1262.7	1144.2	1068.6	1028.6
32.5°	1271.6	1203.4	1081.9	993.0	955.9
35°	1218.3	1142.7	1012.3	918.9	886.3
37.5°	1166.4	1084.9	947.0	844.8	807.7
40°	1111.6	1022.6	878.9	773.6	735.1
42.5°	1055.2	960.4	810.7	701.0	664.0
45°	996.0	896.7	741.0	635.8	600.2
47.5°	939.6	834.4	674.3	569.1	536.5
50°	877.4	772.2	609.1	506.9	475.7
52.5°	816.6	705.5	546.9	449.1	420.9
55°	757.3	641.7	481.7	392.7	364.6
57.5°	696.6	578.0	423.9	340.9	317.2
60°	634.3	515.8	363.1	287.5	263.8
62.5°	573.6	455.0	311.2	240.1	228.2
65°	511.3	391.3	257.9	207.5	203.0
67.5°	452.0	332.0	207.5	182.3	177.8
70°	389.8	274.2	171.9	157.1	151.2
72.5°	330.5	220.8	143.8	131.9	128.9
75°	272.7	169.0	118.6	108.2	106.7
77.5°	214.9	120.0	93.4	87.4	84.5
80°	161.5	86.0	71.1	65.2	65.2
82.5°	112.6	57.8	48.9	45.9	45.9
85°	63.7	32.6	28.2	28.2	28.2
87.5°	23.7	11.9	11.9	10.4	10.4
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	23.19	24.71	23.55	25.02	25.34	19.15	20.67	19.51	20.98	21.30
	3H	24.95	26.32	25.33	26.65	27.01	20.41	21.78	20.79	22.11	22.47
	4H	25.62	26.90	26.02	27.25	27.63	20.91	22.20	21.31	22.54	22.92
	6H	26.11	27.29	26.52	27.66	28.05	21.30	22.48	21.71	22.84	23.24
	8H	26.27	27.40	26.70	27.79	28.19	21.42	22.55	21.85	22.94	23.34
	12H	26.38	27.45	26.81	27.84	28.27	21.50	22.58	21.93	22.96	23.39
4H	2H	23.29	24.57	23.69	24.92	25.30	19.84	21.12	20.24	21.47	21.85
	3H	25.22	26.29	25.64	26.69	27.09	21.29	22.35	21.70	22.75	23.15
	4H	25.97	26.93	26.41	27.35	27.79	21.89	22.84	22.32	23.26	23.70
	6H	26.57	27.40	27.02	27.84	28.30	22.37	23.21	22.83	23.65	24.11
	8H	26.78	27.56	27.24	28.00	28.47	22.54	23.31	23.00	23.76	24.22
	12H	26.93	27.63	27.42	28.11	28.58	22.65	23.35	23.14	23.83	24.30
8H	4H	26.00	26.78	26.46	27.22	27.69	22.24	23.02	22.70	23.46	23.93
	6H	26.64	27.28	27.13	27.77	28.25	22.83	23.47	23.32	23.96	24.44
	8H	26.89	27.46	27.40	27.97	28.46	23.05	23.62	23.56	24.13	24.62
	12H	27.09	27.60	27.60	28.09	28.66	23.23	23.74	23.74	24.23	24.79
12H	4H	25.98	26.68	26.47	27.16	27.63	22.28	22.98	22.77	23.46	23.93
	6H	26.62	27.19	27.13	27.70	28.19	22.89	23.47	23.40	23.98	24.46
	8H	26.90	27.41	27.41	27.90	28.47	23.16	23.67	23.67	24.16	24.73