

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: P242849

Luminaire Tested: S125DRP-S375D840-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S375D840-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

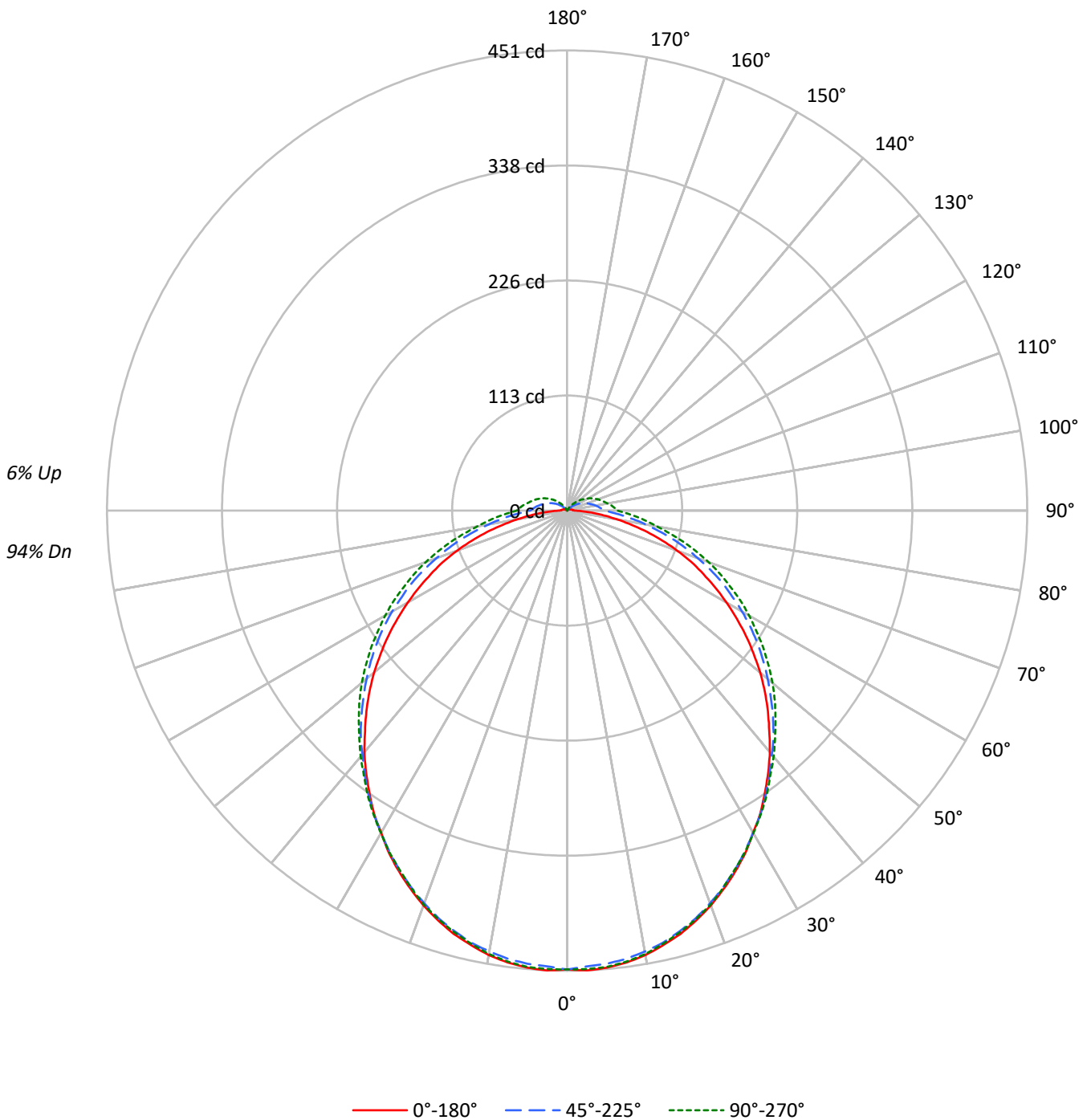
Lumens per Lamp: N/A
Luminaire Lumens: 1393.2 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 11.6
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: P242849

CATALOG NUMBER: S125DRP-S375D840-X4F0-XX-UDD-D-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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3196	3196	3196
5°	3202	3135	3144
10°	3180	3076	3070
15°	3142	3007	2977
20°	3090	2922	2884
25°	3030	2831	2771
30°	2956	2731	2668
35°	2887	2639	2573
40°	2817	2543	2477
45°	2737	2459	2393
50°	2662	2369	2317
55°	2572	2284	2228
60°	2471	2186	2137
65°	2368	2084	2036
70°	2249	1944	1930
75°	2062	1809	1800
80°	1817	1645	1658
85°	1591	1526	1602

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2737 cd/sqm



TEST NUMBER: P242849

CATALOG NUMBER: S125DRP-S375D840-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.6	3.1
10°-20°	120.8	8.7
20°-30°	179.7	12.9
30°-40°	212.8	15.3
40°-50°	220.0	15.8
50°-60°	202.6	14.5
60°-70°	163.8	11.8
70°-80°	109.6	7.9
80°-90°	56.7	4.1
90°-100°	31.9	2.3
100°-110°	23.5	1.7
110°-120°	15.7	1.1
120°-130°	8.9	0.6
130°-140°	3.9	0.3
140°-150°	0.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	343.0	24.6
0°-40°	555.8	39.9
0°-60°	978.4	70.2
0°-90°	1308.4	93.9
90°-120°	71.2	5.1
90°-150°	84.8	6.1
90°-180°	85.0	6.1
0°-180°	1393.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	450	449	446	449	449	43
15°	430	430	427	430	428	121
25°	390	392	389	391	388	180
35°	338	341	340	341	341	211
45°	278	283	285	288	289	215
55°	214	221	228	233	235	191
65°	147	157	168	175	176	146
75°	81	93	107	116	118	86
85°	24	39	54	64	68	25
90°	7	21	36	46	49	5
95°	6	17	32	42	45	5
105°	4	11	24	33	36	4
115°	3	6	17	25	28	3
125°	2	1	10	17	19	1
135°	1	0	4	9	12	1
145°	0	0	0	2	4	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CATALOG NUMBER: S125DRP-S375D840-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	449.7	449.7	449.7	449.7	449.7
2.5°	451.1	450.2	447.1	450.2	449.7
5°	449.7	448.9	445.8	449.3	448.9
7.5°	446.7	446.2	443.1	446.2	445.8
10°	442.3	442.3	438.7	441.8	441.4
12.5°	436.1	436.5	433.9	436.1	434.8
15°	429.5	429.9	426.8	429.5	427.7
17.5°	421.1	422.0	418.9	421.1	419.8
20°	411.8	412.7	409.6	410.9	410.9
22.5°	401.2	403.0	399.5	401.2	399.9
25°	390.2	391.5	388.9	390.7	388.5
27.5°	378.3	380.1	377.0	378.3	377.4
30°	364.6	367.3	364.6	365.5	365.1
32.5°	352.3	354.5	352.7	353.6	353.2
35°	337.8	340.8	339.5	340.8	340.8
37.5°	323.6	326.3	325.8	327.6	327.2
40°	309.1	312.6	312.2	313.9	314.8
42.5°	293.2	298.1	299.4	301.6	301.6
45°	278.2	283.1	285.3	288.4	288.8
47.5°	262.8	267.2	270.7	275.1	276.0
50°	246.9	251.8	256.6	261.5	262.8
52.5°	230.2	236.3	242.5	247.8	248.7
55°	213.9	220.9	228.0	232.8	234.6
57.5°	197.1	205.5	213.4	218.7	220.0
60°	180.3	189.2	198.0	204.6	205.9
62.5°	164.0	172.8	182.5	190.0	191.8
65°	147.3	157.4	168.0	174.6	176.4
67.5°	131.8	141.5	152.1	160.1	162.3
70°	114.6	124.8	136.2	144.6	147.3
72.5°	97.9	108.5	121.3	130.5	132.3
75°	81.1	92.6	106.7	115.5	117.7
77.5°	64.8	78.0	91.3	101.0	102.7
80°	49.8	63.1	78.0	87.7	89.5
82.5°	36.2	50.3	65.7	75.0	78.5
85°	24.3	38.8	54.2	63.9	67.5
87.5°	15.4	29.5	44.5	54.7	57.8
90°	7.1	21.2	36.2	46.3	49.4
92.5°	6.2	19.0	34.4	44.1	47.2
95°	5.7	17.2	32.2	41.9	45.0
97.5°	5.3	15.9	30.4	39.7	42.8
100°	4.9	14.1	28.2	37.5	40.1
102.5°	4.4	12.8	26.5	35.3	37.9
105°	4.0	11.0	24.3	33.1	36.2
107.5°	3.5	9.7	22.5	31.3	34.0
110°	3.1	8.4	20.7	29.1	32.2



TEST NUMBER: P242849

CATALOG NUMBER: S125DRP-S375D840-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.1	7.1	19.0	26.9	30.0
115°	2.6	5.7	17.2	25.1	27.8
117.5°	2.2	4.4	15.4	22.9	26.0
120°	2.2	3.5	13.7	21.2	23.8
122.5°	1.8	2.2	11.9	19.0	21.6
125°	1.8	1.3	10.1	17.2	19.4
127.5°	1.3	0.9	8.4	15.0	17.6
130°	1.3	0.9	7.1	13.2	15.4
132.5°	0.9	0.9	5.3	11.5	13.2
135°	0.9	0.4	3.5	9.3	11.5
137.5°	0.9	0.4	2.2	7.5	9.3
140°	0.4	0.4	0.9	5.7	7.5
142.5°	0.4	0.0	0.0	4.0	5.7
145°	0.4	0.0	0.0	2.2	4.0
147.5°	0.0	0.0	0.0	0.9	1.8
150°	0.0	0.0	0.0	0.0	0.4
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	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	13.96	15.49	14.41	15.93	16.39	15.00	16.53	15.45	16.97	17.43
	3H	15.61	17.00	16.08	17.45	17.95	17.18	18.57	17.65	19.02	19.52
	4H	16.18	17.49	16.67	17.96	18.48	18.14	19.46	18.63	19.92	20.44
	6H	16.55	17.78	17.06	18.26	18.80	19.04	20.26	19.54	20.74	21.28
	8H	16.66	17.83	17.18	18.34	18.88	19.47	20.64	19.99	21.15	21.69
	12H	16.72	17.84	17.24	18.34	18.91	19.93	21.05	20.45	21.55	22.12
4H	2H	14.72	16.04	15.21	16.50	17.02	15.53	16.85	16.02	17.32	17.84
	3H	16.60	17.71	17.10	18.23	18.77	17.92	19.04	18.43	19.55	20.10
	4H	17.30	18.32	17.82	18.84	19.42	19.04	20.06	19.56	20.58	21.15
	6H	17.81	18.70	18.35	19.25	19.84	20.10	21.00	20.65	21.55	22.14
	8H	17.96	18.80	18.51	19.35	19.95	20.62	21.46	21.17	22.01	22.61
	12H	18.06	18.82	18.63	19.40	20.01	21.18	21.94	21.75	22.52	23.13
8H	4H	17.78	18.62	18.33	19.17	19.77	19.30	20.14	19.85	20.69	21.29
	6H	18.45	19.16	19.03	19.75	20.36	20.52	21.23	21.10	21.82	22.43
	8H	18.69	19.32	19.28	19.93	20.55	21.16	21.80	21.75	22.40	23.02
	12H	18.87	19.44	19.46	20.03	20.72	21.87	22.44	22.47	23.03	23.72
12H	4H	17.88	18.64	18.45	19.22	19.83	19.31	20.08	19.89	20.66	21.26
	6H	18.61	19.25	19.20	19.85	20.47	20.57	21.21	21.16	21.81	22.43
	8H	18.93	19.50	19.52	20.09	20.78	21.27	21.84	21.87	22.43	23.12